DRAWING & DESIGN

A TEACHER'S MANUAL

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MANUAL OF DRAWING AND DESIGN FOR ELEMENTARY AND HIGH SCHOOLS

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MANUAL OF DRAWING AND DESIGN

FOR

ELEMENTARY AND HIGH SCHOOLS

AUTHORIZED BY THE

DEPARTMENT OF EDUCATION

OF BRITISH COLUMBIA

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PREFACE

THIS Manual of Drawing and Design was prepared by a Committee of Elementary School, High School, and Normal School Art Masters and Supervisors, at the request of the Education Department of British Columbia, and its purpose is to set out a course in Drawing and Design for both Elementary and High Schools which shall be capable of being intelligently followed by the teacher, and which shall not over-tax the pupil.

It is primarily a manual for the teacher, and the teacher is asked to study the text of the various parts for the arguments contained therein. Only thus can the drawings be properly appreciated and used. The methods described throughout the book have been found fruitful, but other methods equally good may be found and used. The general principles underlying this scheme, both in Drawing and Design, should, however, be adhered to, and teachers will find the courses at the end of each division a useful guide in this respect. It is desirable that each grade covers the work allotted to it, giving approximately two hours per week to the subject, so that the whole scheme as outlined can be covered.

Teachers of ungraded schools will find it advantageous to group their pupils under such headings as Junior, Intermediate, and Senior, allocating Grades I., II., III.

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to Junior ; IV., V., VI. to Intermediate, and VII., VIII., IX. to Senior. The work for these various groups could then be chosen from Grades II., V., and VII. respectively, or could be chosen from all of the grades contained in the group.

Where such nature forms as are suggested in the course month by month are not obtainable, they must, of course, be substituted by such material as is locally available.

The same holds good in respect to objects suggested for the various grades. These particular articles need not be used, other objects based on a common shape being used instead.

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GLOSSARY OF TERMS USED

Line of Vision.—An imaginary straight line from the eye to the object.

Normal Colour.—The standard type of any common colour.

Hue of Colour.—Any normal colour modified by the addition of a small quantity of any other colour.

Tone.—The degree of light or dark on any surface or of any colour.

Tint of Colour.—A tone of colour lighter than the normal tone.

Shade of Colour.—A tone of colour darker than the normal tone.

Flat Wash.—A tone of colour which is perfectly even, showing no gradations.

High Light.—The brightest or whitest spot or area of light on the object.

Half Tone.—That tone which lies between the light and dark parts of the object.

Shade.—To be found on that part of object receiving little or no light.

Cast Shadows.—Those shadows cast by objects standing in line of light.

Blocking-in.—First light sketch lines of a drawing, usually determining size and proportion of object or group.

Local Colour.—The normal colour of the object unaffected by light or shade.

Mass Drawing.—An expression of form by means of a flat tone of colour, usually painted without preliminary sketch lines and devoid of detail.

Conventionalization.—To take a natural form, and by simplification or amplification of form make it fit a geometric area so that balance within the area is obtained.

Accented Line.—An outline showing varying strengths or thicknesses according to the form the artist desires to express.

Colour Scheme.—A logical and thoughtful plan for the painting of a design.

Colour Harmony.—A combination of colours which so harmonize as to excite pleasure.

Composition.—The bringing together of objects or lines on a definite plan so that beauty of arrangement is attained.

Decorative Treatment.—Nature forms or objects treated from the desire to make pleasing form, line, and colour, and less from the desire to represent nature as she really is.

Design.—The filling of a space decoratively with a conventionalized rendering of a natural form or with an arrangement of abstract forms.

Dominant Colour.—That colour in a design which forms the keynote.

Graphic Expression.—An expression by form in pencil, paint, pen, crayon, or charcoal.

Medium.—The nature of the material used in making a drawing such as : Pencil, Charcoal, Water-colour, Pastel, Pen and Ink.

Foreshorten or *Perspective.*—The apparent reduction of dimensions through relative position of object to the eye.

Neutral Tone.—A tone in which no one colour is dominant.

Units.—A pleasing line or shape which, by repetition and in combination, may form the motif of a design.

Tone Values.—The relative degree of light or dark caused by the juxtaposition of different tones in a picture or in a design.

Finish.—A completion in accord with the original aim of the artist.

Constructive Lines.—Lines formed for the purpose of helping to get correct form of object ; often imaginary axes.

Visual Observation.—Observation of form through the eye, as opposed to a mental concept.

Static Lines.—Lines which have no variation in position—Horizontal, Vertical.

Contour.—The edge or outline formed by an object seen against a background.

Reflected Light.—A light reflected on to an object from some place other than the source of light.

I. PRIMARY DRAWING AND COLOUR WORK

GENERAL

DRAWING and colour work is an excellent training for the hand and eye. It supplies valuable exercises in orderliness, neatness, concentration, and judgment, and at the same time may be used to stimulate the child's interest in its surroundings.

The Primary Work is the foundation upon which the higher grades have to build their Drawing and Design, therefore this foundational work must be good and thorough. A simple thing well done and understood is more valuable than more advanced work only half comprehended.

The teacher must not be discouraged if progress is slow at this stage, and should not proceed with a new step until the exercises leading up to it have been mastered by the pupils.

Children should be taught to draw what they see, and to work as far as possible from the actual objects.

Try for correct placing and good form, endeavouring to do a few simple things well.

Though the drawing in this grade should be of an informal character, the children should be taught to sit in correct and healthful positions, and to handle their

materials in the correct way. In this grade the children's imagination should be cultivated by encouraging them to record their ideas of familiar objects, animals and scenes of everyday life, or whatever else may appeal to them.

The materials recommended are crayons or pastels, soft pencils, a three-colour water-colour box with No. 6 brush, a dish for water, and a paint cloth. Crayons may be found more suitable than water-colours for the First Grade, since they can be readily applied in mass or line.

Avoid scribbling in using the crayons, and in mass drawing work outwards from the centre.

Pastel drawings may be made on coloured paper, preferably grey or brown. This is an advantage over water-colours, as light objects can be represented on dark backgrounds without difficulty.

Two colours can be blended by working one over the other. Breakage of crayons does not interfere with their use.

Water-colours.—Order and system are absolutely necessary in the care of the colour boxes and brushes. A clean box is essential.

Do not rub the brush when cleaning; stir it around in the water to rinse out the colour, and then draw it gently to a point through the paint rag. Put it away while damp.

Take water from dishes with the brush held in a horizontal position.

Do not scrub with the brush when mixing colour; try to keep it pointed as much as possible, using side of brush with a rolling motion of the fingers.

In laying on a wash of colour consider these three points :—

(1) Work with a full brush of colour.
(2) Lay on the colour in broad strokes from left to right, and do not retouch as the colour is drying. (Plate 1.)
(3) Lift off the surplus colour from the bottom of the paper with the point of a dry brush.

When drawing with the brush, hold it near the point and keep in an upright position. Slope the brush slightly in the direction of the line or edge to be drawn. (Plate 1.) For mass drawing work outwards from the centre, keeping plenty of colour on the paper to allow of corrections being made before the colour dries.

Pencil.—See section on pencil drawing *re* holding of pencil, page 39.

GENERAL NATURE OF EXERCISES

Pastel or Water-colour :—

(*a*) The drawing of simple rounded forms, such as a ball of wool, orange, balloons, etc., introducing and teaching the names of simple colours.
(*b*) Simple representations of animals based upon the ball or oval form—for example, cat, mouse, rat, chicks, duck, robin, fish.
(*c*) Simple representations of common flowers, leaves, trees, fruit.
(*d*) Toys and other objects of interest to children.
(*e*) Lines—figures in action, house, boat, wagon, etc.
(*f*) Laying flat tints—making simple scenes in season. Plates 2 to 6.

The illustrations on the plates should not be used as copies. Similar drawings should be made by the teacher from the actual objects, or, in the case of animals or landscapes, from suitable photographs or pictures.

These exercises should be correlated with language and reading lessons, and with everyday experiences of the pupils. Encourage children to illustrate stories.

In imaginative drawing of this nature it would be unwise to leave children entirely to their own resources. Having made an attempt to express some idea, the pupils' drawings should be compared and observation directed with a view to correcting the weak points. Reference should be made to pictures and objects, and comparisons made with the pupils' drawings so as to correct wrong impressions. After discussion and observation of this nature the pupils should be allowed to make a further attempt at the same subject. The aim of the teacher here should be to encourage rather than to criticize.

Water-colour.—The preceding exercises will also be found suitable for water-colour, except that the pupil will first master the laying on of flat washes as outlined in section (*f*) before proceeding to the drawing exercises (*a*), (*b*), (*c*), (*d*), and (*e*), as outlined under "Pastel or Water-colour."

Exercises should also be added in grading a wash of colour from dark to light, and also in grading a wash of one colour into another colour.

Pencil.—Two types of exercises should be followed in this grade. The child should be taught correct position and the proper method of holding the pencil as explained on page 39. Drill should be given in drawing the fundamental lines—vertical, horizontal, and oblique. This

can be taught in an interesting manner by allowing the pupils to make simple drawings of houses, boats, cars, etc. These may be drawn by the teacher on the blackboard, and the names and the proper method of drawing each line taught as the drawing proceeds. (Plate 4.)

Memory Drawing.—Sometimes the pupils may be asked to observe some special thing at home or on the street, and make a memory drawing in school. At other times some simple object may be shown to them for a few minutes in the classroom, and then drawn from memory. With the above exercises it would be well to compare the drawings made with the object and then re-draw, or make another drawing.

A broad, soft pencil should be used at this stage.

Imaginative Drawing.—After working a few exercises as outlined in the previous sections the children will be in a position to make drawings of simple things that interest them—objects of everyday life, toys, games, illustrations to fairy stories.

The stories listed below will all be found in some one of the following mentioned books :—

For the Children's Hour. Bailey and Lewis, Milton Bradley Co., Springfield, Mass.

Ethics for Children. E. L. Cabot, Houghton Mifflin Co.

Nature Myths and Stories. F. J. Cooke, A. Flanagan Co., Chicago.

Once Upon a Time Animal Stories. C. S. Bailey, Milton Bradley Co.

How to Tell Stories to Children. S. C. Bryant, Houghton Mifflin Co.

Stories

I. (B). Mother Goose Jingles. The Old Woman and her Pig. Three Little Pigs. Chicken Little. Little Red Hen. Gingerbread

Boy. Three Billy Goats Gruff. Raggy Lug. Three Bears. Red Riding Hood.

I. (A). Little Half Chick. Cinderella. Snow White and the Seven Dwarfs. The Elves and the Shoemaker. Puss in Boots.

II. (B). Sleeping Beauty. Ugly Duckling. Why the Bean wears a Stripe down its Back. Æsop's Fables.

Legends and Myths Simplified and Adapted

Greek.—Clytie, Arachne, Persephone, Narcissus, Midas.

Indian.—How the Robin's Breast became Red. How the Mole became Blind.

Lapland.—The Sun's Sisters.

Old Legend.—The Dipper.

PRIMARY DRAWING COURSE

GRADE I. (B)

N.B.—The following course is suggested for classes grading in September. Those grading in January or February will find the same suggestions applicable, but the nature suggestion must be altered to suit spring and summer months. (See suggestions for Grade I. (A).) Drawings need not necessarily be made from the actual flowers or leaves, but the lessons will be much more interesting if each child has a specimen to enable it to follow the teacher's description and drawing.

SEPTEMBER

Pastel Drawing in Mass.—Circles of primary colours evolved from the centre in mass, from objects such as balls of wool, balloons, etc.

Imaginative Drawing.—Lead pencil or pastel. The children should be allowed to give pictorial expression to the things that interest them: their toys, their games, incidents of their experience, or a pictorial expression of a fairy tale. All these furnish appropriate subjects for drawing, and it should be the aim of the teacher at this period to encourage much and to criticize little.

OCTOBER

Pastel Drawings in Mass.—Leaves, flowers, fruit, or vegetables in season—for example, aster, pear, plum, pumpkin, beet, Hallowe'en lantern, etc.

Memory Drawing. Lead Pencil or Pastel.—Drawing of any object previously announced (with, perhaps, an interval of a day for observation), such as a toy or some common object in the home.

NOVEMBER

Pastel Drawings in Mass.—Carrot, turnip, potato, bulrush. (Plate 6.) A very simple scene in season—blue sky, brown earth, fence or tree with bare branches.

Imaginative Drawing, as previously outlined.

DECEMBER

Pastel Drawings in Mass.—Christmas toys or any objects associated with Christmas—tree, stockings, crackers, pudding, etc. Simple snow scene—sunset colours for sky, white ground.

Imaginative Drawings of some object or incident associated with Christmas.

JANUARY

Pastel Drawings in Mass.—Simple rounded forms—cat, duck, lantern, fan, snow-man, etc. (Plate 5.)

Imaginative Drawing of some object or incident connected with winter games.

GRADE I. (A)

N.B.—Classes may work either the course in Pastel or the Water-colour course. The following course is suggested for classes grading in January or February. Those grading in September will find the same suggestions applicable, but the nature suggestion must be altered to suit autumn and winter months. Drawings need not necessarily be made from the actual flowers or leaves, but the lessons will be much more interesting if each child has a specimen to enable it to follow the teacher's description and drawing.

FEBRUARY

Pastel.—Teach primary colours from objects placed in front of class and drawn in mass. Red, yellow, and blue balls of wool. Lanterns, round teapot, egg, Humpty-dumpty, duck, stork, pussy-willow. (Plates 5, 6.)

Pencil Drawing.—Horizontal and vertical lines. Fence with gate, telephone poles and wires, tree with bared boughs.

Water-colour.—Washes of primary and secondary colours. Simple scenes in tones of one colour. (Plate 2.) Drill in drawing horizontal and vertical lines with the brush, using the same exercises as in the Pastel course for this month.

Note particularly the manner of holding the brush. (Plate 1.)

MARCH

Pastel.—Spring scene—blue sky, green grass, fleecy clouds, mass drawings of snowdrop, crocus, twigs with buds, Easter eggs, chicks, rabbits. (Plates 5, 6.)

Memory Drawing, as previously outlined.

Water-colour.—The same as suggested above for Pastel work.

APRIL

Pastel.—Spring landscape—blue sky, green trees and grass or fruit tree in blossom. Draw tree, fruit, and branches in black, and add pink and white bloom.

Mass Drawings.—Spring flowers—tulip; primrose; violet or any flower obtainable. Birds' nest with eggs; birds—robin. (Plates 5, 6.)

Pencil Drawing.—Action figures. (Plate 4.)

Memory Drawing, as previously outlined.

Water-colour.—The same as suggested for Pastel.

Note the manner of holding the brush. Do not overcharge the brush with colour when drawing lines. (Plate 1.)

MAY

Pastel.—Sunset or sunrise with purple mountain. (Plate 3.) Drawings of trees and leaves, seasonable flowers, simple animal forms. (Plate 5.)

Pencil Drawing.—Action figures; windmill; boat or any other object of interest to children.

Imaginative Drawing.—In connection with literature and language lessons, as previously outlined.

Water-colour.—The same as suggested for Pastel work for this month.

JUNE

Pastel.—Review primary and secondary colours, and use in summer landscape or making of mats.

Mass Drawings of any available flowers and fruits.

Memory Drawings of flowers and leaves.

Water-colour.—The same as suggested for Pastel work for this month.

GRADE II. (B)

N.B.—Classes may work either the course in Pastel or the Water-colour course. The following course is suggested for classes grading in September. Those grading in February will find the same suggestions applicable, but the nature suggestions must be altered to suit spring and summer months. (See suggestions for I. (A).)

Drawings need not necessarily be made from the actual flowers, but the lessons will be much more interesting if each child has a flower to enable it to follow the teacher's description and drawing.

SEPTEMBER

Pastel.—Forms of round or oval character—animals as in Plate 5. Leaves, trees in autumn colours, autumn flowers, dahlia, sunflower, etc.

These exercises are similar to previous exercises, and the pupils should now be able to give more attention to form and colour. Note variations of colour.

Pencil Drawing.—Simple line drawings of any interesting objects connected with home, games, stories. (Plate 4.)

Water-colour.—Practice washes of various colours by means of simple scenes. (Plates 2 and 3.) Graduated washes of primary

colours from dark to light, and vice versa. Use these also in simple scenes. Mass drawing of simple trees and leaves in autumn colours.

OCTOBER

Pastel Drawings in Mass.—Blend different colours. Carrot, beet, seed pods, pumpkin, Hallowe'en lantern, an autumn landscape. (Plates 3, 6.)

Pencil Drawing of objects or incidents suggested in literature or language lessons.

Water-colour.—Graduated washes in secondary colours. Use these in scenes—for example, autumn landscape (Plate 3) ; misty sea (Plate 2). Mass and line drawings as suggested in Pastel course for this month.

NOVEMBER

Pastel.—November landscape with brown earth and tree with bare branches or a fence with a gate. (Plates 2, 3.)

Mass drawings, using two or more colours. Japanese lanterns, fans or umbrellas.

Pencil Drawing.—Show objects for a few minutes ; discuss them and then draw from memory. The objects suggested for this month would be suitable.

Water-colour.—The same exercises as suggested in Pastel course for this month.

Pay attention to the manner of holding the brush and pencil.

DECEMBER

Pastel.—Scene with snow. (Plate 3.)

Mass drawings—Christmas tree, bells, holly, Japanese doll, Teddy bear, crackers, etc.

Let the objects be bright in colour and very simple in shape.

Imaginative Drawing. — Illustrate objects or incidents from Christmas stories.

Water-colour.—The same exercises as suggested in the Pastel course for the month.

JANUARY

Pastel.—Mass drawings. Animals mentioned in stories—mouse, cat, bear, squirrel, etc. (Plate 5.)

Pencil Drawings of any familiar objects of interest—street cars, auto, tug-boat, ferry-boat, airplane.

Give attention to correct manner of holding pencil.

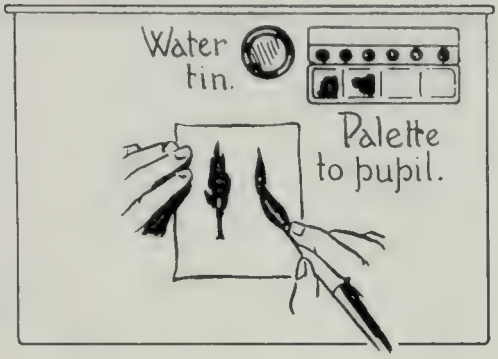
Imaginative Drawing of winter games—snow-balling, skating, sleighing, etc.

Water-colour.—Snow scene with sunset.

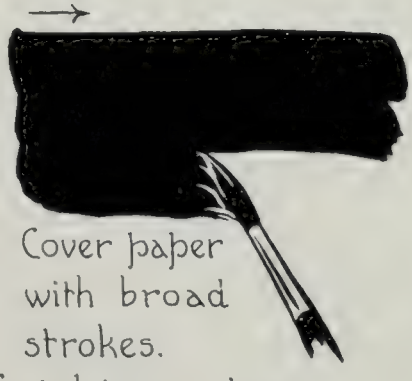
Draw a snow man in pencil and paint sky around him, leaving white paper for snow.

PRIMARY ILLUSTRATIONS

General hints on brushwork



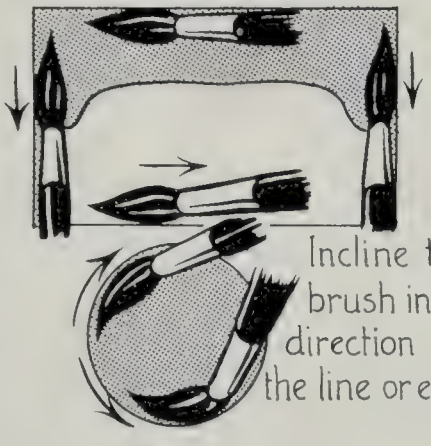
Encourage orderly and systematic arrangement of materials



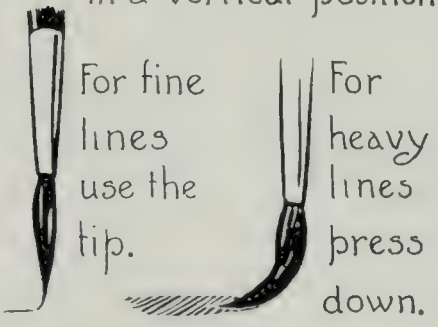
Cover paper with broad strokes.

When drawing hold the brush in a vertical position.

Finishing edges.



Incline the brush in the direction of the line or edge.



For fine lines use the tip.

For heavy lines press down.

PLATE 2

Suggestions for Wash Drawings

Suggestions for Wash Drawings

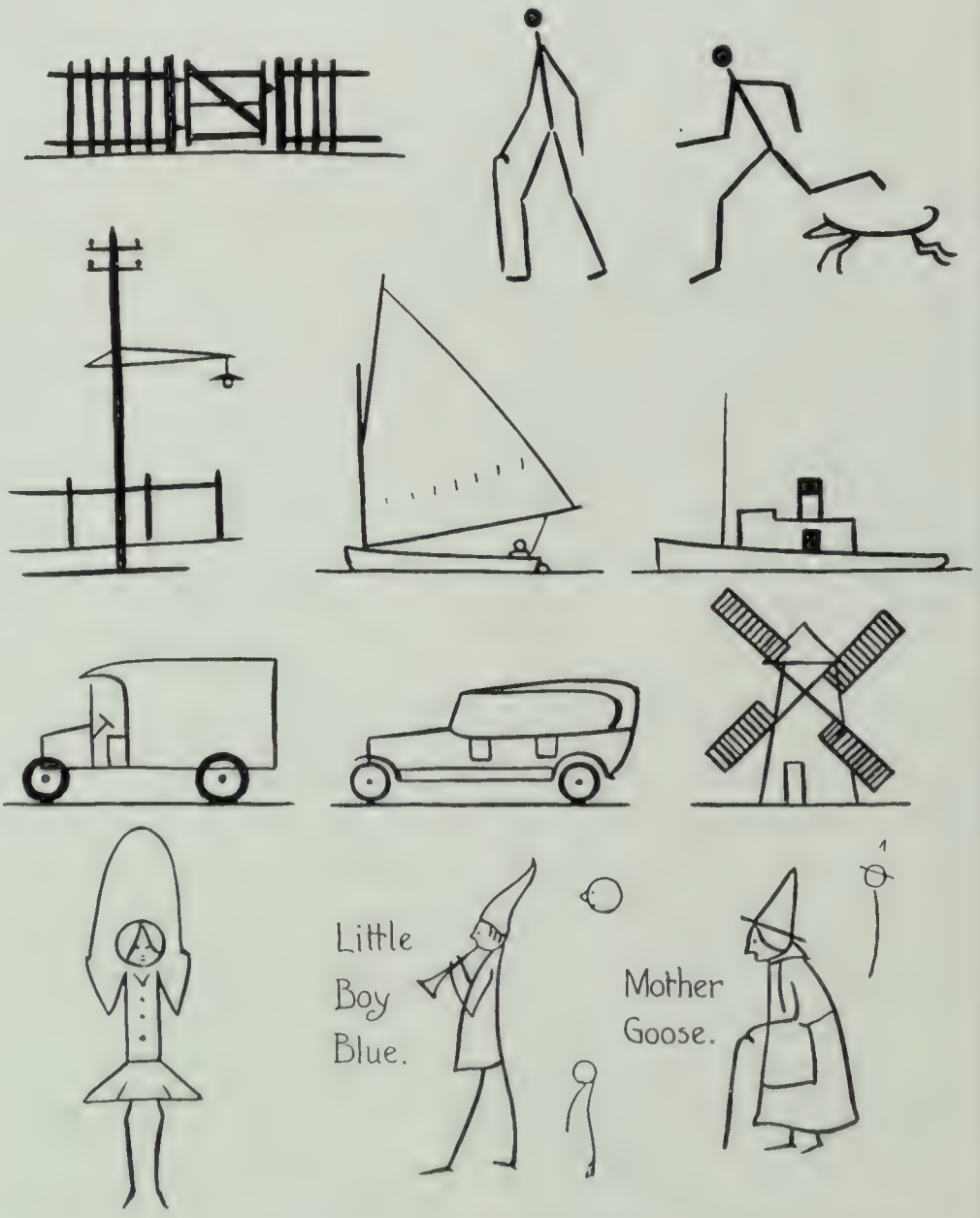
Spring.

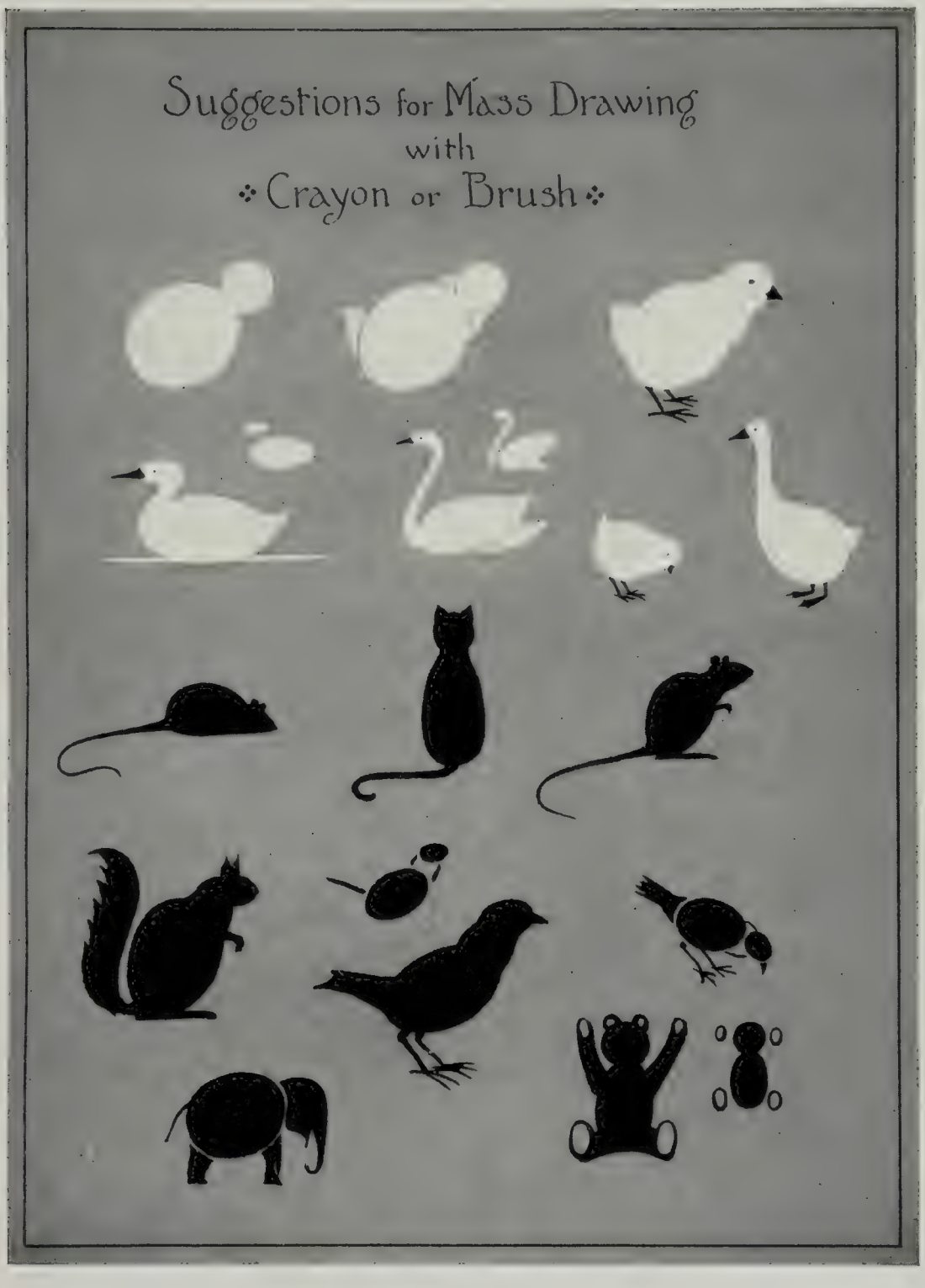
Summer.

Autumn.

Winter.

Suggestions for Line Exercises in Crayon, Pencil and Brush ·:·:· Grades I & II.




Suggestions for Mass Drawing
with
Crayon or Brush

Suggestions for Mass Drawing
with
Crayon or Brush

II. DRAWING IN ELEMENTARY SCHOOL GRADES

GENERAL

Much has been written on "What is Art?" and the matter is not yet concluded, since Art is something more than science or man can yet agree upon or define. Art has been defined as "emotion expressed through a personality," while drawing, on the other hand, has been defined as "the expression of form upon a plane surface." From these two generally accepted definitions it is in order to assume that drawing comes within the realm of science, and as such is teachable, while Art would appear to involve that expression of personal quality which is beyond all teaching. It is necessary that this difference between draughtsmanship and artistry be understood by all school teachers, because there is a very erroneous theory still abroad that good drawing cannot be expected from any but talented pupils—that the power to draw is a heavenly bestowed gift; and in proof of this contention instances are quoted wherein a pupil, good in other school subjects, is poor in drawing, and a good drawer poor in other subjects. This seeming proof, however, is met in many other subjects, and proves nothing but that there is variety in humans.

But it will generally be found that the top-dozen pupils

in general subjects are top also in drawing, and teachers are warned of the bad psychological effect in their teaching of drawing if the erroneous theory, already mentioned, is held by them. If the teacher of drawing will but realize that drawing is a science, and as such is definable and teachable, much pain and hardship will be spared to teacher and pupil alike.

The teaching of drawing in public schools is only justifiable on the grounds that it can be taught, and, when correctly taught, is valuable along the lines of general education as a type of reasoned observation obtainable in no other way, as a handmaid to crafts and industrialism generally, and, last but not least, as an aid in the appreciation of those truths of beauty seen in Nature and in Art.

Teachers and psychologists tell us that a large measure of the pupils' knowledge is gained through the eye, yet failure to realize that drawing is a powerful exercise in reasoned observation is frequently met. If teachers will only realize that drawing is but the expression of form upon a plane surface, and that this expression may be in line, in light and shade, or in colour ; that a form in line is but a " shape " composed of lines of varying length lying at different angles to each other ; a form in light and shade but " shapes " of tone of varying size and value in juxtaposition to each other ; and a form in colour but a mosaic of " colour shapes," clarity of understanding would at least be obtained. From such clarity of understanding comes good teaching.

To be able to draw is but to have this ability to judge length and direction of one line in relation to another, one shape in relation to another, and one tone in relation to another.

It is well to understand that a drawing may be in pure outline, in light and shade, or in colour, and that these three classes may be again divided so that we may have outline plus a little light and shade, or light and shade plus a little colour, and so on up to full rendering in colour. In other words, the term "finish," when applied to a drawing or work of art, must be judged in relation to what the draftsman or artist sets out to accomplish. Consequently it is wrong to assume that an outline drawing is necessarily unfinished and that a drawing in light and shade is finished. A good outline drawing may be a better representation than a bad light and shade one, may be even more expressive, just as a child's drawing very often expresses more than that of an adult.

It is undeniably true that all early art was outline work, and that all the early drawings of children are in outline, and this in spite of the fact that what the eye receives from the natural world is not an impression of lines, but an impression of masses of tone.

This "expression" in line when the "impression" is in masses of tone is explained by the fact that the sense of touch is a powerful factor in the early life of the child, and this sense of touch is so closely related with vision in the early period of a child's life as to make him draw in line.

The history of Art makes it evident that expression in line was the basis of drawing, and development has been by the addition of shading to relieve the flatness of line work, until now full light and shade is recognized as offering the most complete rendering of the facts in Nature's phenomena. From the artistic standpoint, however, this development has not been all gain, for when realization is most complete,

most photographic, the mind is apt to be led away by side issues connected with the things represented instead of seeing the emotional intention of the artist expressed through them. That is a point, however, that need not deter teachers in public schools from opening the eyes of their pupils to the beauties of light and shade.

If the definition of drawing as an " expression of form upon a plane surface " by means of lines or light and shade be accepted, and it is realized that a child in his early years expresses naturally in line, then outline drawing must be taught as the first step in the Grammar of Drawing. From this pupils would be led to an appreciation of simple light and shade (tone values), and through this to a full rendering in strong light and shade and colour.

The course in drawing as laid down in this manual is based on this assumption, and the attempt made to so grade the work that there is a sequence throughout the entire course. Realizing that drawing is hand and eye work (mostly eye, however), certain " hand " exercises in methods of drawing straight lines and curves, putting on of tone, etc., are demonstrated, and are expected to be done concurrent with drawing from the actual models. Such exercises are not in themselves drawing, but are useful in creating the elements that go to enclose form or shape; and since this is so, care should be taken not to overdo them.

The suggested methods of the drawing of these elements have been proven good, although it is conceded that there is more than one method of drawing a line. It is, however, necessary that some " one " way be taught rather than that the pupil be left to his own devices.

DRAWING IN GRADES II., III., AND IV.

It is to be understood that drawing from the beginning will be from actual objects, and it is incumbent, therefore, on the teacher to see that only such shaped and proportioned objects be placed before the pupils as can be well understood by them. No objects involving perspective are introduced at this stage, and straight-lined objects are taken first because a straight line is so absolutely simple that any departure from its straightness can be readily observed by the youngest child.

The meaning of horizontal, vertical, and oblique lines can be illustrated in the first instance with a pointer or a broomstick, and preliminary exercises given in the drawing of each of these types of lines. Simple objects involving horizontal and vertical lines only may then be attempted.

After a proficiency has been acquired in drawing the above, objects containing oblique lines might be taken up; and in drawing such objects it will be well, as a general rule, to draw the horizontals and verticals first, for the verticals and horizontals serve as a guide in sensing the angle of the oblique line. (Plate 7, figs. A, B, C.)

In commencing curve-lined flat objects, some preliminary exercises should be given in the drawing of the simple arc. Soft, flexible rope or white tape hung in various positions against the blackboard make good exercises. Objects should be used in which the curves are associated with straight lines, the curves to be preferably arc-like. (Plate 9, figs. A, B, C, D.) Circular flat objects, elliptical flat objects, and irregular-shaped flat objects should then follow in the order given, and

the drawing of these done, so far as is possible, without construction lines. (Plate 11.)

Much of the teacher's instruction should consist of directing the attention of the pupil to the relationship and proportion of the several parts of the object to each other. While the teacher should, of course, give periodical demonstration on the blackboard to show the kind of thing that is wanted, such drawing should not be copied by the pupil.

Preliminary Exercises in Drawing Vertical, Horizontal, and Oblique Straight Lines.

Considerable stress should be laid on the necessity of comparing verticals and horizontals with corresponding edges of paper. This ability on the part of the child to sense the parallelism of these lines is very important, inasmuch as an appreciation of oblique and curved lines is only possible when a mental and visual sensing of the vertical and horizontal is held. These exercises should be made as interesting as possible—not merely dull drills. Attention of the children should be frequently drawn to facts of parallelism and proportion.

Grade III. pupils will, if properly taught, draw a good straight parallel line, judge halves and quarters, and generally tell whether a drawing is too long or too broad. Little more need be asked of them in the way of reasoned proportion. Attention should be given at this stage to the method of holding the pencil and the drawing of the various types of lines.

A line should not be drawn until the pupil has fixed its position on the paper, first mentally, and also by the putting down of points ; the line should then be drawn

with one eye on the process and the other on the point towards which the pencil is travelling. The majority of children are apt to rush the drawing and do their thinking afterwards. Good results may be got from very young pupils if they are asked to look intently at the paper, fix position and length of line, first mentally, and then by points before actually drawing. Pupils should sit in an easy, upright position, and refrain from putting their weight on the pencil or gripping it hard when drawing. This latter is often done unconsciously by young pupils ; indeed, their very earnestness to give a clean, straight, steady line is often responsible for these deep black rutlike lines. If the pencil is reasonably soft, say H.B. or B., about all the weight necessary to put on the paper in the beginning of a drawing is the weight of the pencil itself. Later on in the finishing process a little more weight may be used.

Holding of the Pencil.—Let the pencil be held lightly about $1\frac{1}{2}$ inches back from point between thumb and forefinger.

Drawing of Verticals.—In the drawing of the vertical lines a finger movement should be used. Let pupil place pencil on point of departure, take a look at point of arrival, and without shifting position of hand, bend fingers towards himself, drawing a line the length of which shall be determined by the flexibility of fingers used.

Before the line departs from its straightness and assumes an arc-like tendency, stop, shift position of hand lower, catch line where it was left off, and with another look at point of arrival, continue the journey. The hand should be in such a position that pencil is at right angles to position of line drawn. This detail

may seem very involved, but if understood by the teacher and the action demonstrated at the blackboard by the teacher without actually drawing a line on the blackboard, it will be readily understood by even very young pupils.

In this demonstration the teacher should not actually draw the line on the blackboard, because the method of drawing a line with chalk on a vertical blackboard is altogether different from drawing a line with a pencil on a horizontal or inclined plane.

Drawing of Horizontals.—Pencil is held in same position as for vertical, but the action of drawing a horizontal line is an arm and not a finger movement. Commence line at left-hand point, and complete by a series of short arm movements, shifting position of arm for each section of line drawn. The hand should be in such a position when drawing this type of line that the pencil is at right angles to position of line drawn.

Drawing of Oblique Lines.—The method of drawing this type of line and the position of the hand in so doing is determined by the angle of obliquity. If the angle approximates to the vertical, then the vertical method is employed—that is, finger movement; if the angle approximates to the horizontal, then the horizontal arm movement is employed.

All of these methods have been proven and found fruitful, but the aim to be constantly kept in mind is that drawing is an eye, brain, and hand exercise, and that the manner in which a child is asked to compare line with line or line with edge of paper, both as to slant and dimension, or the proportion of one part of an object to another, will determine good from bad teaching. Get the children into the habit of comparison, into a critical attitude towards their drawings, and they

are on the highroad to good work which will not only produce neat, orderly, logical methods, but give them a sense of reasoned visual observation which should play a vital part in other school subjects, and cast its value forward into their later workaday life.

Plate 7 illustrates some rectilinear forms suitable for this grade, arranged in order of difficulty ; and Plate 8 the various teaching steps in drawing such forms.

Curves : the Arc ; the Compound Curve.—The actual drawing of a curved line is not more difficult than a straight line ; but when the curve is drawn in representation of a curve contained in an object, then the difficulty is materially increased. A degree of curvature is more difficult to gauge than the slant of a straight line, and it should be clearly understood that curvature is sensed only in relation to some idea of straightness—that is, verticalism or horizontalism—already held by the mind. Hence the necessity already alluded to, of children possessing this faculty of judging verticalism, horizontalism, and parallelism. The arc is the simplest curve to sense and draw, and objects containing straight and arc-like lines should now be attempted.

Method of Drawing the Arc and Compound Curve.—In the drawing of the arc and compound curve the pencil is held in a similar position to that for the straight lines, but gripped looser if anything, and wrist and arm left flexible. A curve is a thing of grace, and grace is incompatible with stiffness and rigidity. The larger the curve to be drawn the farther back from the point should the pencil be held. Let it be understood that the aim is to exactly represent the curve contained in the object, and that a curve of any degree, even if well drawn, is not the desired end. Do not confuse calligraphic facility

with true representation of form. A curve cannot always be drawn in one stroke, particularly if it is an inward curve, nor should one so demand it. It should be emphasized that the beauty of a curve lies in its continuity—in the rhythm that runs throughout it.

Combination of Rectilinear and Curvilinear Forms.—Let the straight lines be drawn first, and the degree of curvature judged in relation to them. This is in conformity with the educational law " from the simple to the complex," and it is also the method adopted by all artists.

In drawing bi-symmetrical forms keep one eye on the side first drawn when completing the other side. There is a big danger among pupils of all ages to have mind and eye fixed on the pencil point and the little piece of line which is being drawn rather than on the relation of the part to the whole. Constantly try to visualize the drawing on the paper before using the pencil. Plate 9 illustrates some objects combining rectilinear and curvilinear forms, and Plate 10 the various teaching steps necessary for the drawing of such forms.

Circular and Elliptical Flat Objects.—There are two methods of procedure in the drawing of these types of objects. In one case a vertical and horizontal axis is drawn, and the curved form drawn deliberately in relation to them. In the other case a freer method is adopted, and an attempt made to create the form with a free arm movement and imaginary axes. This free rendering is then studied for its imperfection, corrected and re-drawn in parts with more deliberation. With some forms this latter method is preferable ; but teachers must use their own judgment in this respect.

In such a group as an orange and lemon it is obvi-

ously needlessly pedagogic to find a vertical and horizontal axis for each fruit before proceeding to draw. Better to create a free round and oval form first, and then add any peculiarities which the particular specimens may contain. This, again, is proceeding "from the simple to the complex." Plate 11 illustrates some objects of circular and elliptical form.

Finishing of these Objects.—While it is not desirable at this stage to finish these objects in full light and shade, it is sometimes advantageous to add tone to certain parts of an object by simple lines packed close together, or by washes of colour. Sometimes a wash of neutral tone over the background, leaving the object in light, is desirable. At other times the line may be accented on the shaded side of the object. Plate 12 illustrates these different methods in finishing.

DRAWING IN GRADES V., VI.

Drawing from Three Dimensional Objects.—It has been customary in the past for the drawing from flat forms to be followed by drawing from forms of three dimensions, cylindrical forms usually being preferred, and the pure cylinder taken as a first exercise. (Plates 13, 14.)

It was felt that the foreshortening of the circle into an ellipse as contained in the pure cylinder was the simpler way of explaining that form undergoes a change in appearance consistent with the relative position of the object to the eye. This change in the appearance of form goes under the name of Perspective, or Foreshortening, and much harm in the teaching of drawing has been done under these terms.

If the teaching of drawing in our public schools is primarily a lesson in visual observation, then the theory of perspective should take a very back seat indeed; for the theory of perspective, while giving certain principles along which form is modified, will not in itself produce correct observational drawing. Ruskin mentions the fact of Turner, who, though appointed Professor of Perspective in the Royal Academy, had no use for the science, and never used it in his pictures. Nor is it of any use in that most difficult form of all drawing —the human figure.

In order to get correct drawing of forms of three dimensions the first difficulty to overcome is to reduce appearances to terms of the flat, and to judge relative length and angle of line and part to other lines and parts. Let the simple principles underlying the cylindrical forms be taught; but once the idea is caught by the children, emphasis should be laid on teaching the subject along the methods of comparing line with line and part with whole, as already suggested in the introduction. This is not easier, but is simpler in principle and likely to produce a more correct result.

While it is better not to have objects always in the same position for drawing, there is no particular virtue in an object being drawn above, below, or on the eye level. Where virtue lies is in a correct representation of the object in whatever position it may happen to be. This is mentioned because in some mysterious way these three possible positions of an object have seemingly become possessed of a potency equalled only by the perspective theory itself. Pedagogy should not triumph over simple, workmanlike methods of seeing and doing to such an extent as to make it appear that the seeing

and sensing of the object by the child was secondary to the object being in a certain position.

Points to be Observed in Drawing Cylindrical Forms.—The change from the circle to the ellipse should form the first lesson, and either a hoop or a disc can be utilized for this purpose.

If the disc be held by the top and bottom and revolved very slowly, each child will readily see that, while its height from top to bottom remains constant, the surface from back to front becomes narrower and narrower until it disappears altogether, and only a line (the thickness of the metal disc) shows. Thus the principle that the disc cannot in every position be represented by a circle will be easily established.

Again, the disc might be held horizontally and gradually lowered below or raised above the eye level, note being taken of the varying size of the disc's surface at different heights. This principle is important.

It should also be clearly established that so long as the plane of a circle is horizontal the ellipse representing it has a horizontal line as its long axis. (Plates 13, 14.)

It is generally best to fix big dimensions first, realizing that when once a dimension is fixed all other dimensions must be in correct proportion to it. Hence the necessity of comparing height to width of object or group before fixing other dimensions. Hence also the importance of trying to visualize your drawing on paper before ever a mark is put down.

After having fixed certain (not all) main dimensions in relation to each other, it is then well to hold paper out at arm's length, and by rapidly glancing from paper to object compare distances and proportions. If apparently correct, draw the lines, stopping again to check

width to height or part to whole. This habit of continually stopping during the process of drawing is one to be commended for its lessons in self-criticism and observation.

Plate 15 illustrates the relationship between handles and spouts and cylindrical forms.

DRAWING IN GRADES VII., VIII.

Rectangular Forms.—In introducing drawing from rectangular objects the same necessity for teaching the subject by a process of comparative observation of part to whole is desirable as against the temptation of viewing these rectangular forms as exercises in theoretical perspective. Certainly the truth of the following laws should be demonstrated to the pupils by everyday examples, such as—telegraph poles in line, buildings, railway lines, sidewalks, etc. (advertisement drawings and snapshots also make useful demonstration matter); but once these principles are known they should be kept in reserve and used as pointers or as checks on the drawing put down from close-reasoned observation. These principles may be summed up briefly as :—

(1) Decrease of size with increase of distance. This applies to very small objects as well as to large.

(2) Parallel lines appear to converge as they recede from the spectator; directly due to decrease of size with distance.

(3) All receding, parallel, horizontal lines appear to converge to a point on the level of the eye.

It will be well at this point to remember that no amount of knowledge of theoretical perspective will ever fix a relationship between parts or give the correct slant or curvature of a line when drawing from the object. That is the province of the eye alone. Drawing is at all times a matter of keen observation of proportion and of light and shade, and such observation should go hand in hand with the three principles mentioned above. There are many ways whereby the pupil's power of observation can be strengthened, and only those teachers who themselves know "how to look" can hope to get real educational results from their pupils.

Methods of Teaching Rectangular Forms.—Let main dimensions of height and width be fixed first by means of points. Let this be then checked. Find position of verticals, and draw them in. Put in slanting receding lines. The slant of these lines may be judged by comparing them with any vertical contained in the object, using the eye for this purpose. Another way is to hold the pencil out in close juxtaposition to the slanting lines in either a vertical or horizontal position. (Plate 16.)

A common error, and one which is quite inexcusable, is to have the verticals not parallel to each other or to the vertical edges of the paper. This should be checked early by holding paper out at arm's length for comparison. The vertical edge either of paper or object must be constantly used for the purpose of judging parallelism and angles of lines. Indeed, it is not too much to say that without this sense of the static being developed good drawing is impossible. While it has been customary to use the type cube for illustrating the truth of these laws, the lesson can be taught equally well if a shallow, rectangular box without a lid is taken as a first exercise.

The pupil should not be allowed to draw from the conventional geometric models to too great an extent, for all the principles of perspective can be taught from common objects based either on the cylinder or the cube. Plates 17, 18, 19, 20 illustrate methods of sketching various groups.

LIGHT AND SHADE

Qualities in Light and Shade.—There comes a time when the child desires to add to his outline drawing. This addition is either in the form of colour or light and shade.

Finishing a drawing in light and shade means that one desires to express the solidity of an object or objects, either square or round, and also the apparent distances between objects or between object and background. In other words, a drawing finished in light and shade is designed to give the illusion of nature more truly than by outline alone.

Tone Values.—This illusion of solidity, texture, and distance is only possible if the lights and shades are expressed in their proper tones. When tones of light and shade are properly related in their varying degrees of weakness or strength, we say that the " values " are correct. A " tone value " is, therefore, as necessary to get in light and shade as is proportion of height to width, or parts to a whole in outline work.

One might say that without correct proportion outline drawing fails to suggest, and that without proper tone values light and shade work fails to give illusion. The study of tone values in school is an excellent exer-

cise in observation and an open sesame to the appreciation of the beautiful in nature and in pictorial art. Only by practising light and shade work can one learn to appreciate tone values.

Main Divisions in Light and Shade.—In suggesting a series of tone exercises it would be well to point out that light and shade may be roughly divisible into three tones, and that these three tones in turn have their varying degrees. These tones are: light, half-tone, shade.

Direction of Line Used.—It would also be in place to state that the roundness or solidity of an object drawing is not dependable on the direction of the line used when finishing in light and shade, but is entirely dependent on achieving correct tone values. To model a round form with a pencil line that follows the round will help in suggesting the shape, but will not in itself do so. True modelling is dependent on true values. (In pen-and-ink work the direction of the line plays a bigger part in modelling the form.)

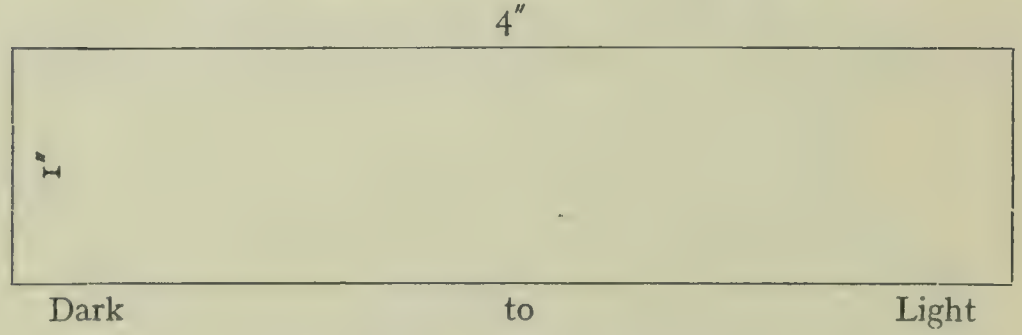
Scribbling.—Shading lines should never be drawn backwards and forwards from left to right (scribbled), except possibly in a background where atmospheric tone is wanted. Such lines are never sufficiently under control, and the little extra thickness that occurs at the turn is a nuisance.

Lighting of Models.—Light and shade contrast is strongest when there is much light, and that light coming from one direction. Light striking the model from all directions offers poor contrast, and is confusing to young students. Many of our schoolrooms are offenders in this respect; a blinding of the offending windows is the only remedy.

Gradation of Tone.—Nearly all expression of form in drawing depends on the power of gradating delicately, and the gradation is always most skilful which passes from one tone into another imperceptibly. Therefore, before asking pupils to draw definite exercises in light and shade, it would be well if some exercises were given in order to develop this rendering of gradations from light to dark.

The appreciation of delicate gradations is very imperfect in all beginners, and a pupil will probably for some time think his gradation skilful enough when it is really quite patchy.

An Exercise in Gradation of Tone



Let an oblong space as above serve as a first lesson in gradation of tone, commencing at left with dark and finishing at right with light. Let pencil be held well back from point, and the tone put on as a series of lines packed close together. Allow no rubbing with the finger in order to induce evenness, but concentrate on getting pupils to get a delicate gradation.

Pencils to be Used.—Once an appreciation of delicate gradation of tone is got, it will be easier for the pupils to see such gradation on objects and in nature. They

will also be a little way on the road to rendering these differences of tone. For rendering light tones an H.B. or H. pencil is suitable, but for general work the B. or B.B. pencil is to be recommended.

Method of Applying Tone.—Whether the pencil is moved by the arm or finger will depend on the shape and extent of the area to be shaded. A little experiment on the teacher's part will soon convince as to the better method.

In working up a strength of tone by repeatedly going over the lines already done it is very often advisable to ever so slightly change the direction of the line. This often helps to " kill " any line effect, and more quickly produces evenness when such is desirable.

Range of Tonal Contrasts.—It has been said that every object, whether light, grey, or dark, is capable of showing three tones of varying degrees—namely, light, half-tone, and shade.

Imagine now a light object placed successively against a light, a grey, and a dark background. Again, imagine a grey object placed successively against a grey and a black background, and still again a dark object placed against a dark background. You would thus have six tonal contrasts, which is about the gamut of contrasts in tone. Each of these objects and backgrounds, though in themselves light grey or dark, are yet capable of showing light, half-tone, shade, and reflected light within their contour. For example : a white sphere against a white background would show gradation of tone, since the sphere has solidity. Where the object and the background are of a similar tone, as grey against grey, black against black, and white against white, you have the more difficult exercise. Such subtle contrasts should,

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therefore, be left for senior classes. Plate 21 illustrates two different techniques in lead-pencil shading, and Plate 22 two different techniques on a grey paper.

Notes on the Qualifying Effect of Light and Shade on Colour.

Changes of colour are due to local colour, angle at which light is received, or by reason of shadow.

The colour of an object is greatly affected by its surroundings (reflected light).

Primary colours are seldom used in their purity when painting, since light and reflected light nearly always modify the local colour.

Generally speaking, a colour is darkened by use of its complementary.

A colour is lightened by the addition of water and some light colour (such as white or yellow), or both.

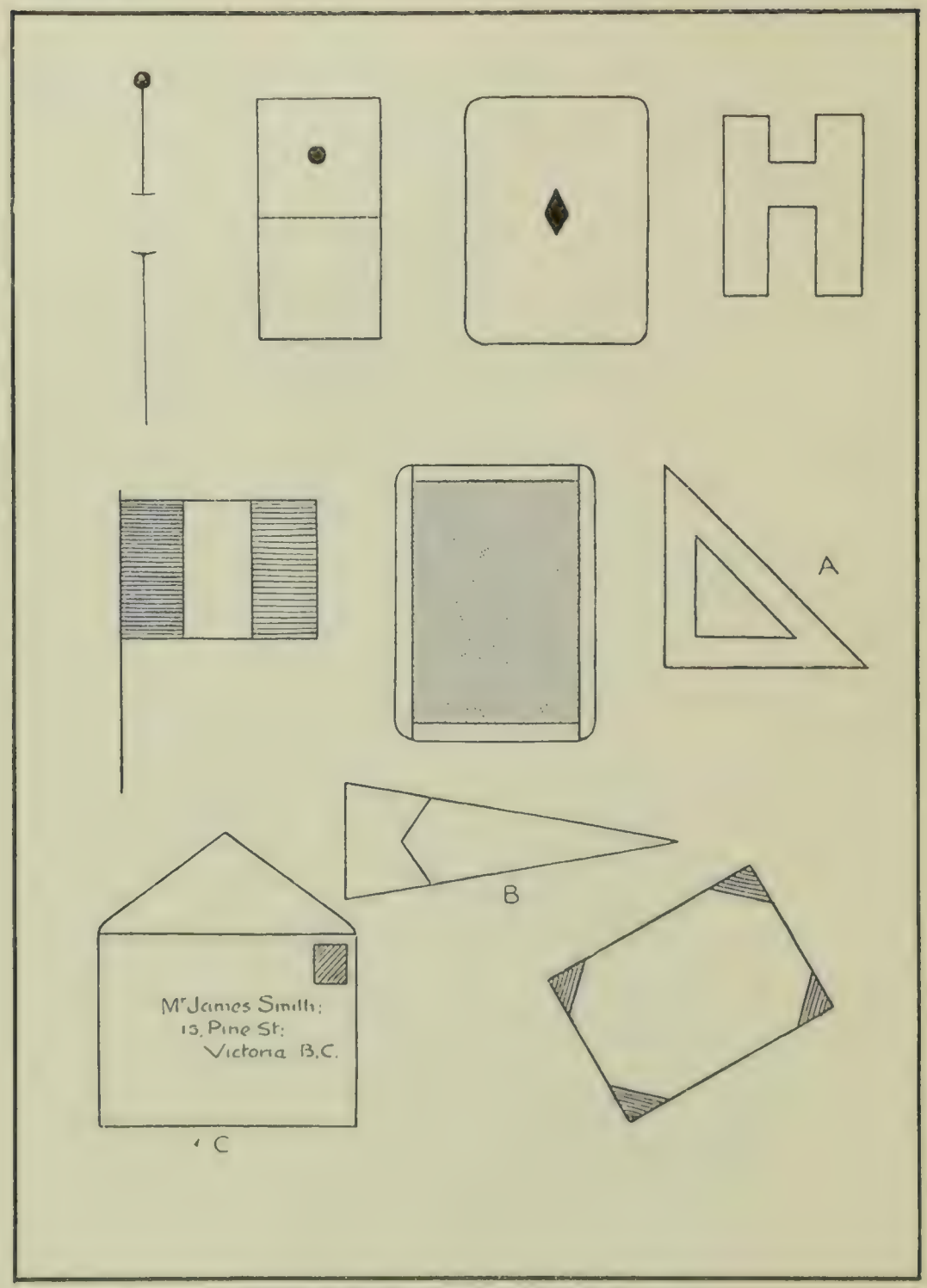
(See Plates 23, 24.)

Note on Nature Drawing in Pastel.—Proceed as in outline drawing, sketching lightly either in pencil or chalk—use no eraser. Work on a grey, brown, or neutral paper of a rough surface, never on a white. Utilize tone of paper as far as possible in tones of objects. Do not rub with finger or rag. Keep touch of pastel or crayon fresh.

The soft pastel gives better colour values, and mixes more readily than the wax crayon, which has, however, the quality of being not easily smudged. Pastels and crayons may be used blunt, and no great detail should be expected of pastel drawing. A quick colour effect is their great quality. (Plate 23.)

ILLUSTRATIONS TO ELEMENTARY SCHOOL DRAWING

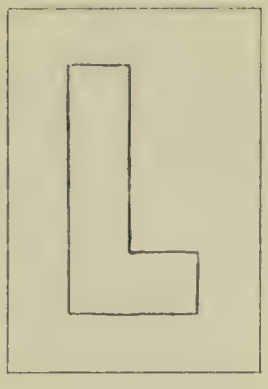
PLATE 7



Suggestive Objects. Grades II., III.

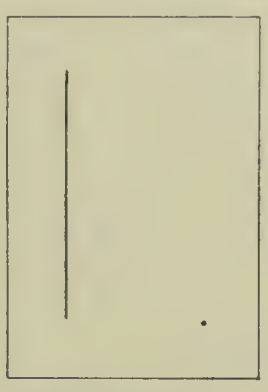
DEVELOPMENT IN DRAWING OF THE LETTER L

An exercise in verticals & horizontals, parallelism & simple proportion.

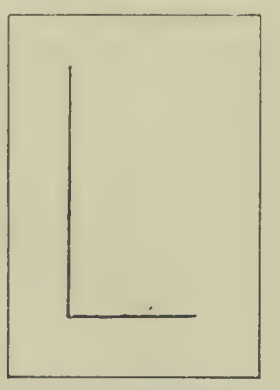


Model to be cut out of cardboard and pinned to blackboard.

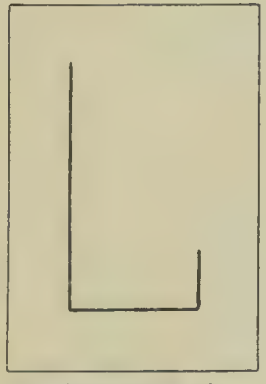
Fix greatest height, & position



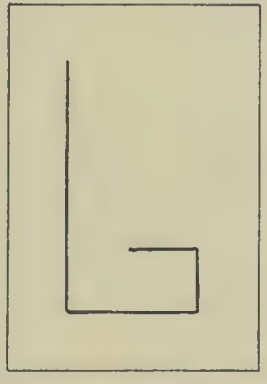
Draw vertical. Fix width in relation to height



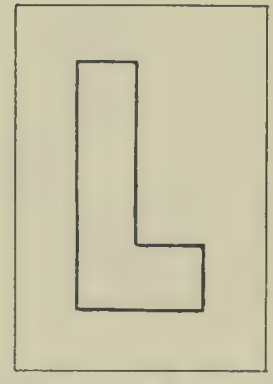
Draw horizontal, check proportion.



Fix breadth of letter, check.

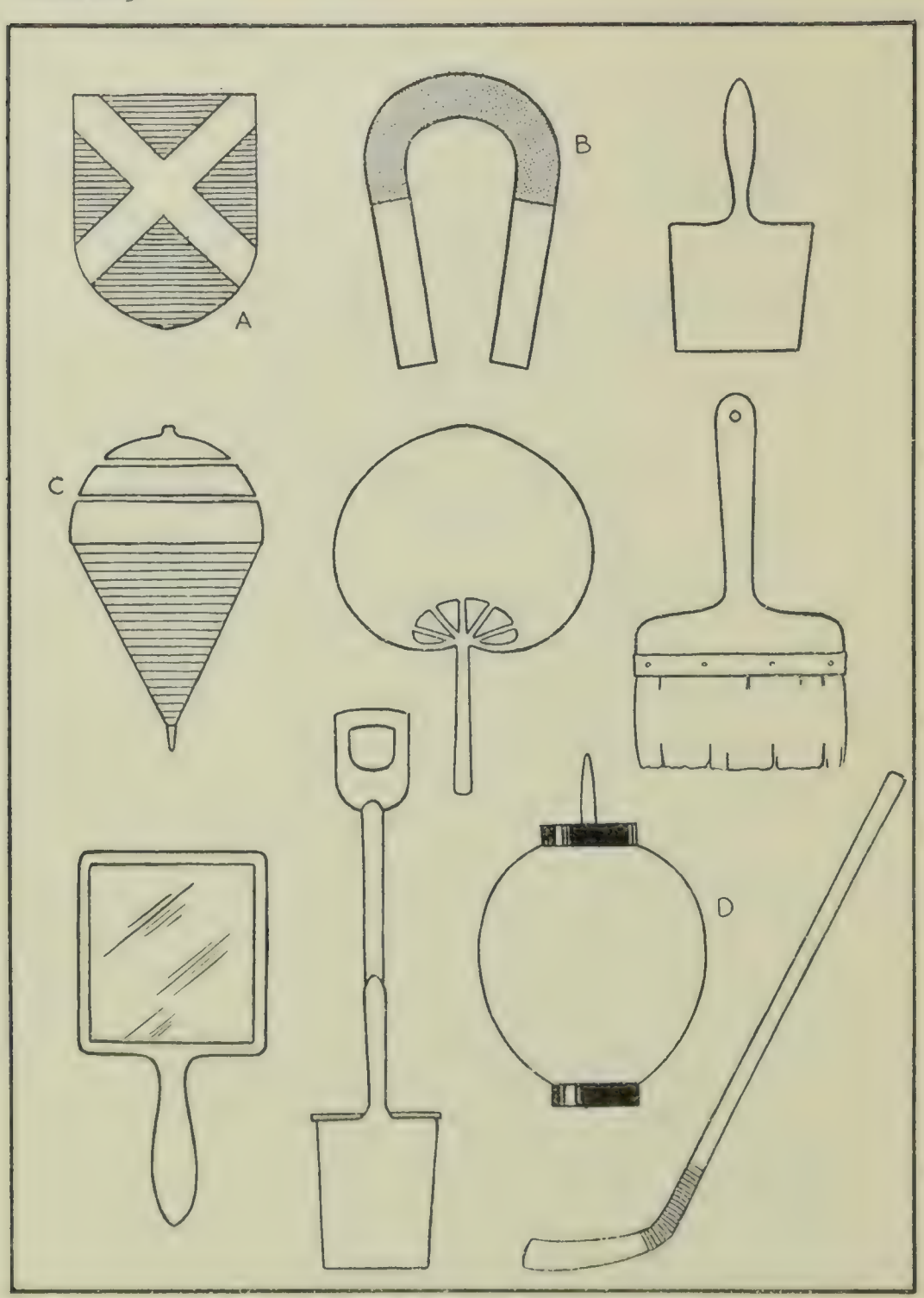


Find proportion of second horizontal



Complete drawing Check proportion.

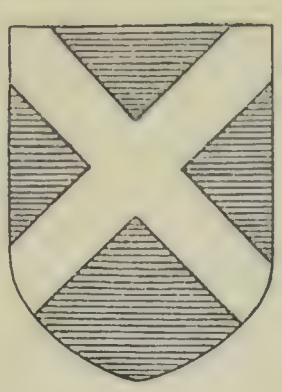
PLATE 9



Suggestive Objects. Grades II., III., IV.

DEVELOPMENT IN DRAWING OF SHIELD

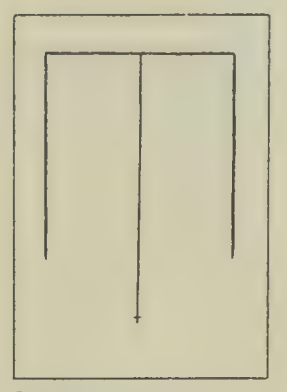
Exercise in straight & curved lines



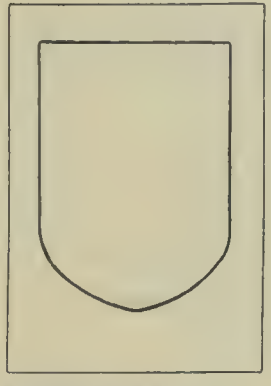
Shield may be cut out of paper or cardboard.

Fix relative height & width

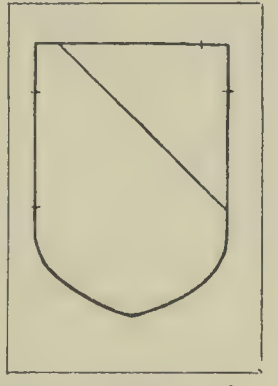
Fix proportion of square part of shield



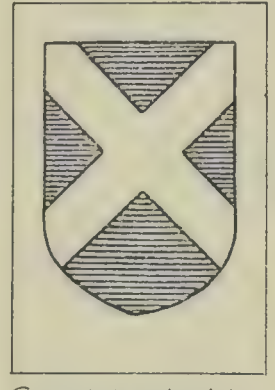
Draw centre line, horizontal & two vertical sidelines



Draw arcs one at left first

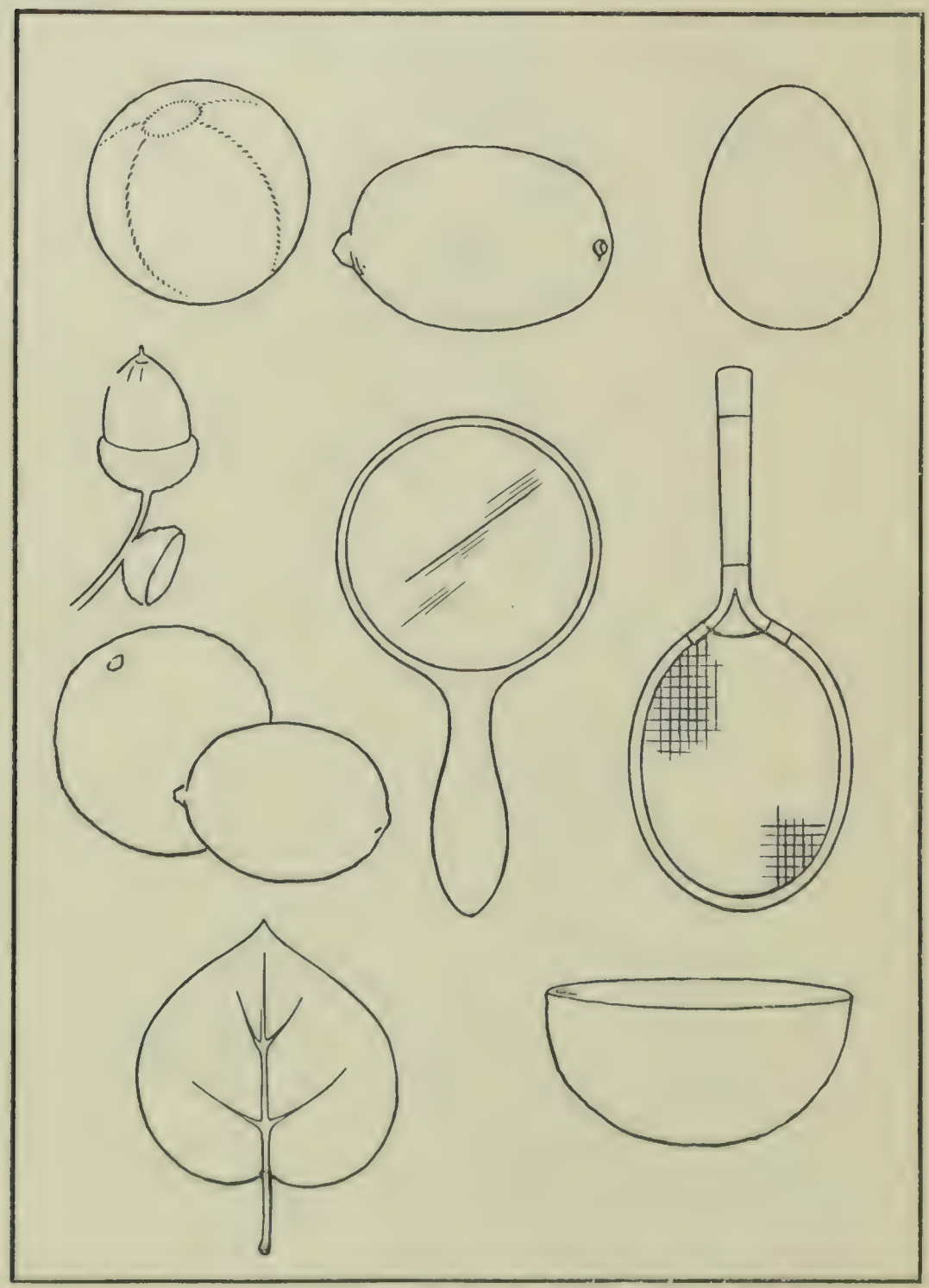


Find position of cross lines

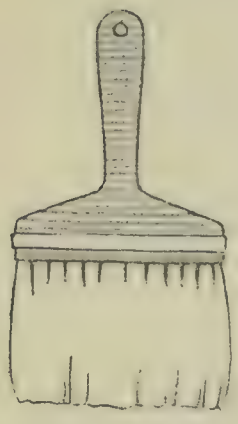


Complete shield, check parallelism of diagonals

PLATE II

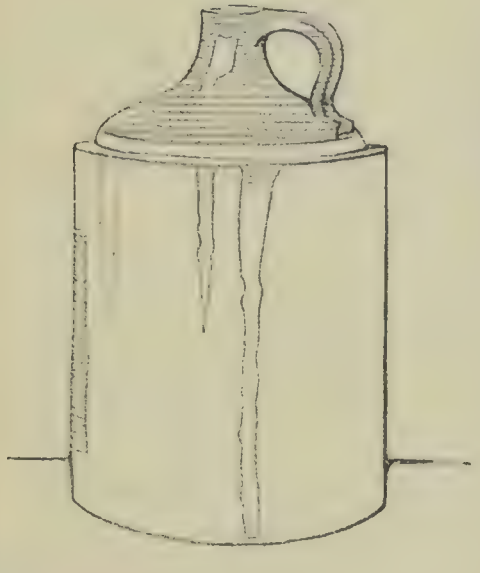


Suggestive Objects. Grades III., IV.



Flat tone - pencil line

Flat wash over background



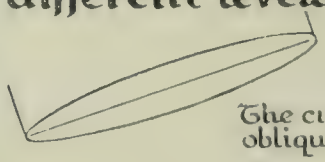
Flat tone - pencil line

Accented Line

Simple Methods in Finishing a Drawing.

The Circle

Its appearance on different planes at different levels.



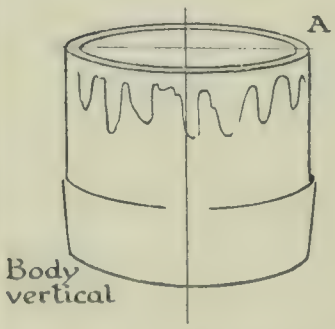
The circle on an oblique plane

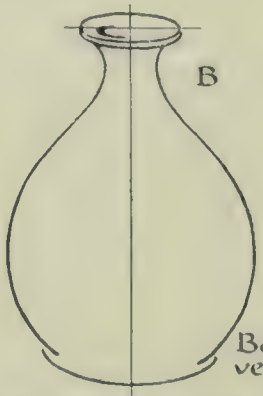
The circle seen on a vertical plane

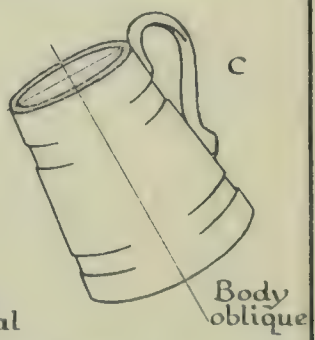
The circle on a horizontal plane below eye level.

The circle on eye level

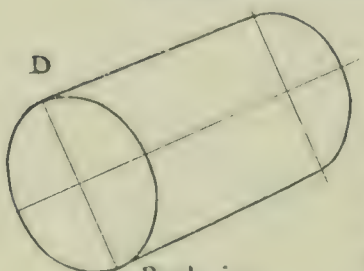
The circle on a horizontal plane above eye level.







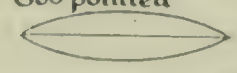
In a pure cylinder or in any object based on the cylinder the main axis of the body forms a right angle with the axis of the ellipse – top or bottom A·B·C·D



Body in horizontal plane side lines of object receding from spectator

Drawing the Ellipse
Hold pencil lightly. Sketch lightly feeling for the curvature before making line on paper begin top left, complete top commence again at bottom left & complete. Try for continuity & balance

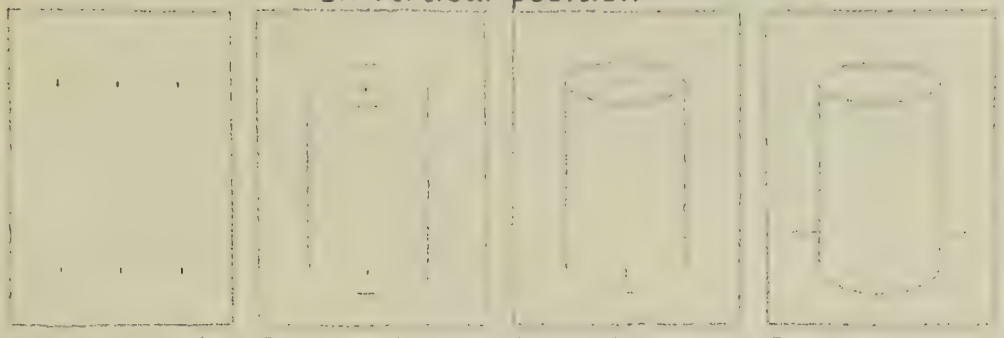
Faulty ellipses.
Too pointed



Too flat

THE PURE CYLINDER

In Vertical position



Fix height and width

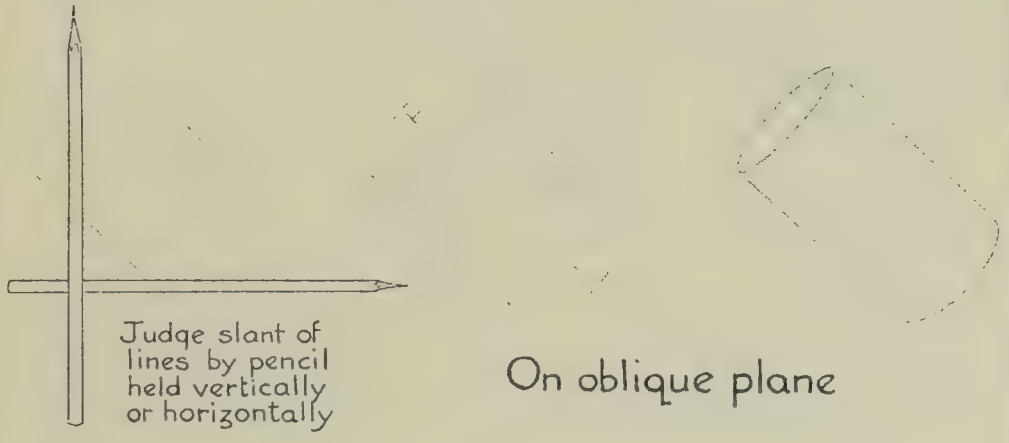
Draw verticals Fix width of ellipse

Draw ellipse Check proportion

Complete with bottom curve

Judge slant of receding lines by pencil held horizontally

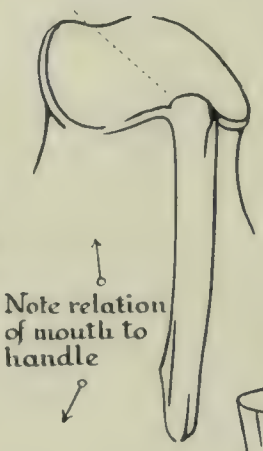
Lying on horizontal plane



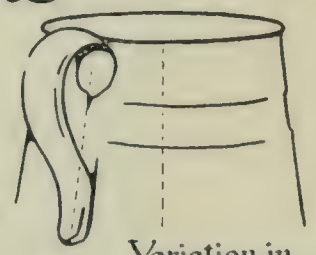
Judge slant of lines by pencil held vertically or horizontally

On oblique plane

Handles & Spouts

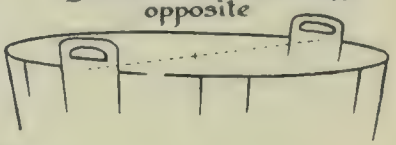


Note relation of mouth to handle

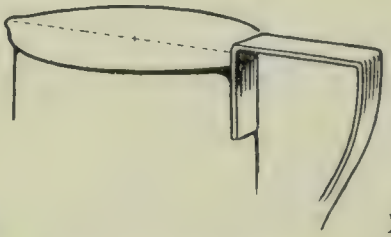


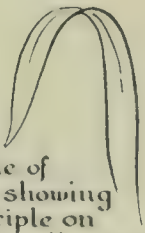
Variation in position of handle on slanting surface

Handles diametrically opposite

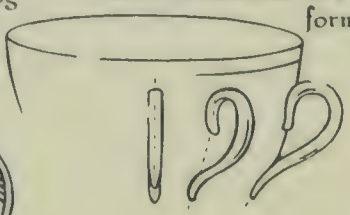


Check shape of this space



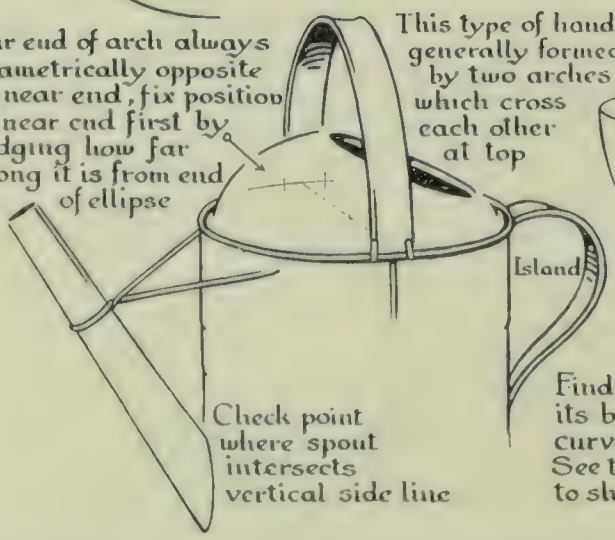


Blade of grass showing principle on which handles are formed



Far end of arch always diametrically opposite to near end, fix position of near end first by judging how far along it is from end of ellipse

This type of handle generally formed by two arches which cross each other at top



Island

Check point where spout intersects vertical side line

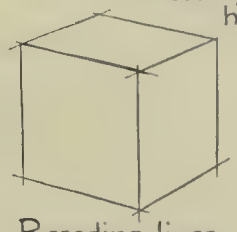
Find position of handle, its beginning & end. Note its curve, shape of "island" enclosed See that double line is drawn to show thickness of metal.

Perspective

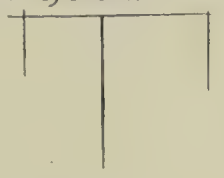
Convergence of lines

Foreshortening of objects

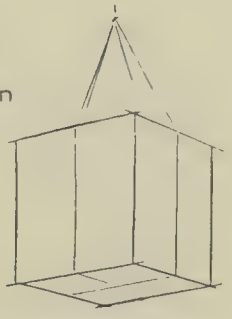
Convergence of receding horizontal lines to a point on horizon or eye level



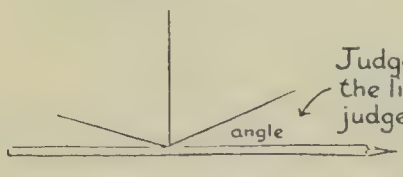
Receding lines below eye level



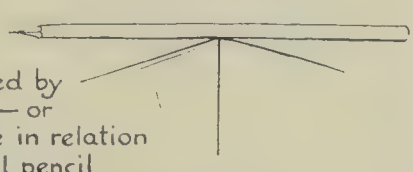
on eye level



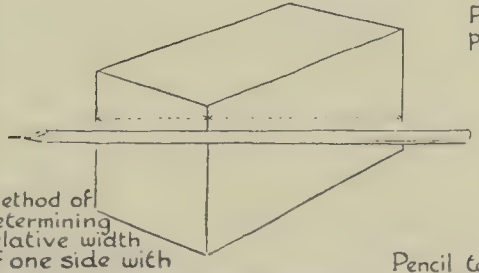
above eye level.



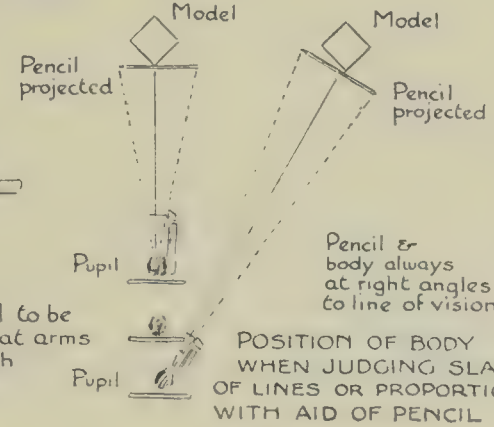
Judge angle formed by the line & pencil — or judge slant of line in relation to horizontal pencil



Pencil must be held horizontal to line of vision

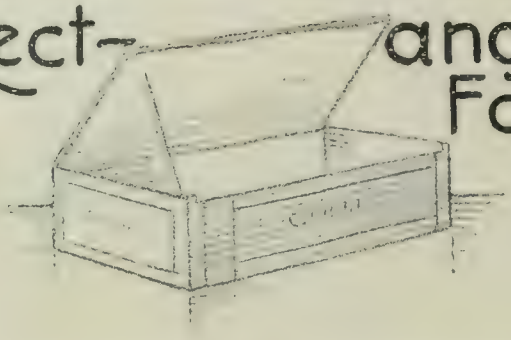


Method of determining relative width of one side with another — Note proportionate width at points where pencil intersects the verticals. Pencil must be held at right angles to lines of vision and at arms length

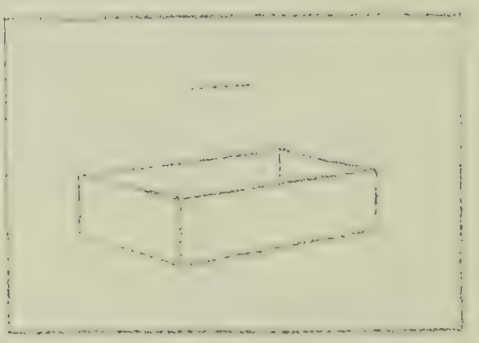


POSITION OF BODY WHEN JUDGING SLANT OF LINES OR PROPORTION WITH AID OF PENCIL

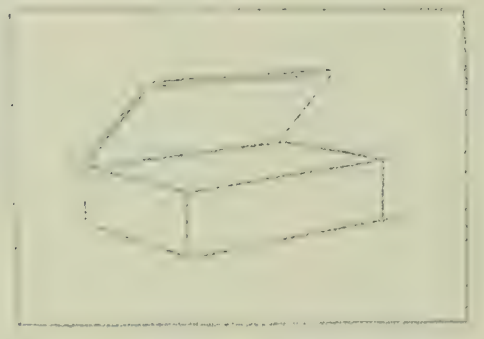
The Rect- angular Form



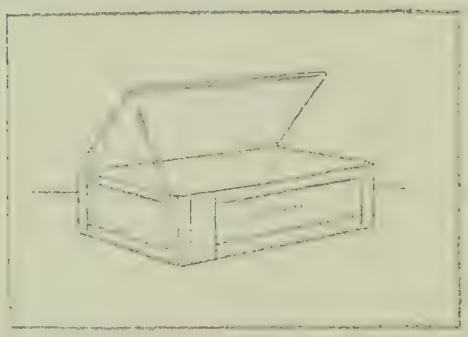
Fix total height & width



Complete box, check for slant & proportion.

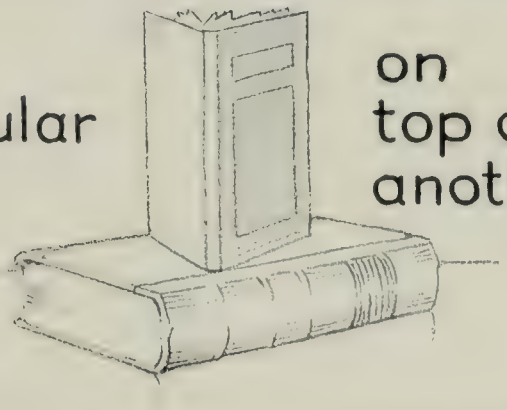


Draw lines of lid judging slant by relating to verticals



Complete & check size of lid by mentally closing the lid. If lid fits proportion is right.

One rectangular form on top of another.



Fix relative dimension height to width

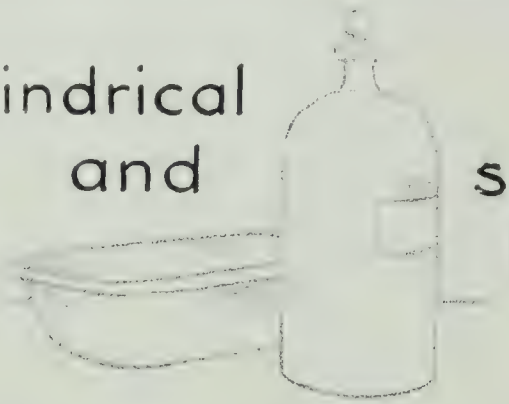
Complete horizontal book Check for proportion

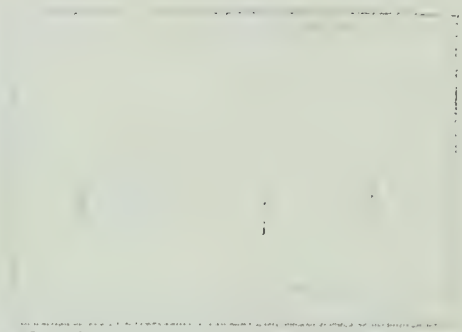
Find points where verticals of upright book intersect back line Check proportion of vertical book

Add details and complete

PLATE 19

A cylindrical and square form





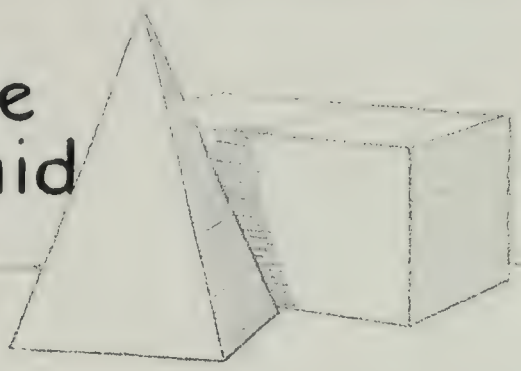
Fix height & width of group, also relative width of bottle to total width of group

Complete bottle, find points on side of bottle where square form intersects

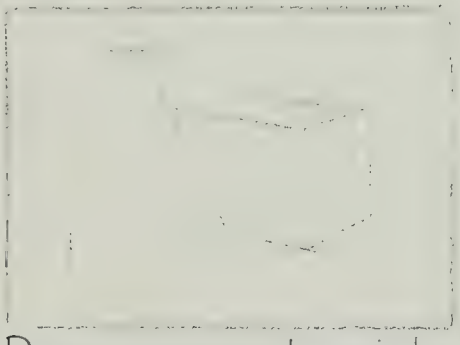
Complete square form checking converging lines

Round corners of square form, complete

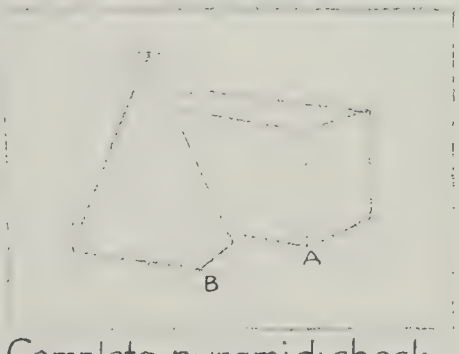
The Pyramid and Square Prism



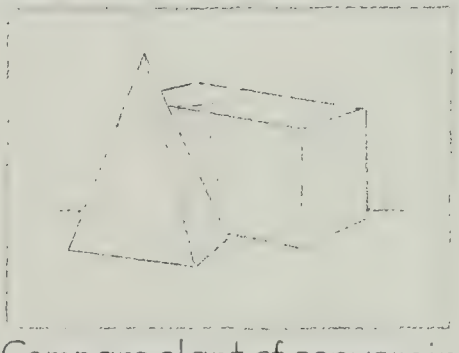
Fix relative dimensions of group; heighth to width.



Draw prism; note points where pyramid cuts prism



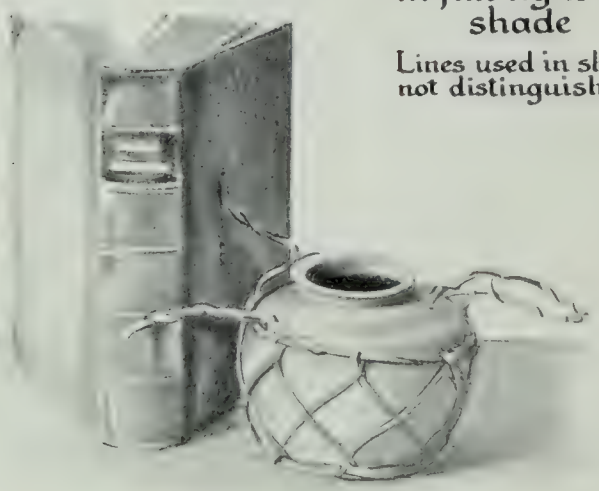
Complete pyramid; check relative position of point B with A. See that apex of pyramid is directly above centre of width at base.



Compare slant of converging lines on pyramid & prism. Note shape of any shadow cast by pyramid on prism.

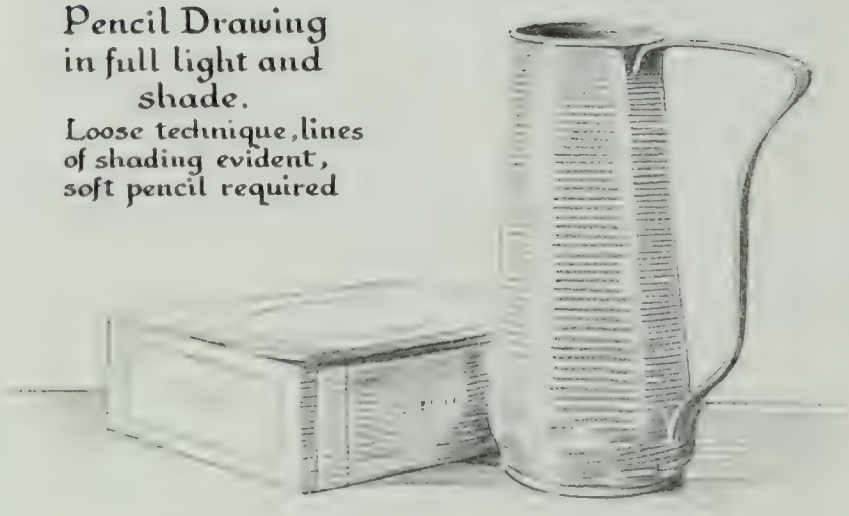
Pencil Drawing
in full light and
shade

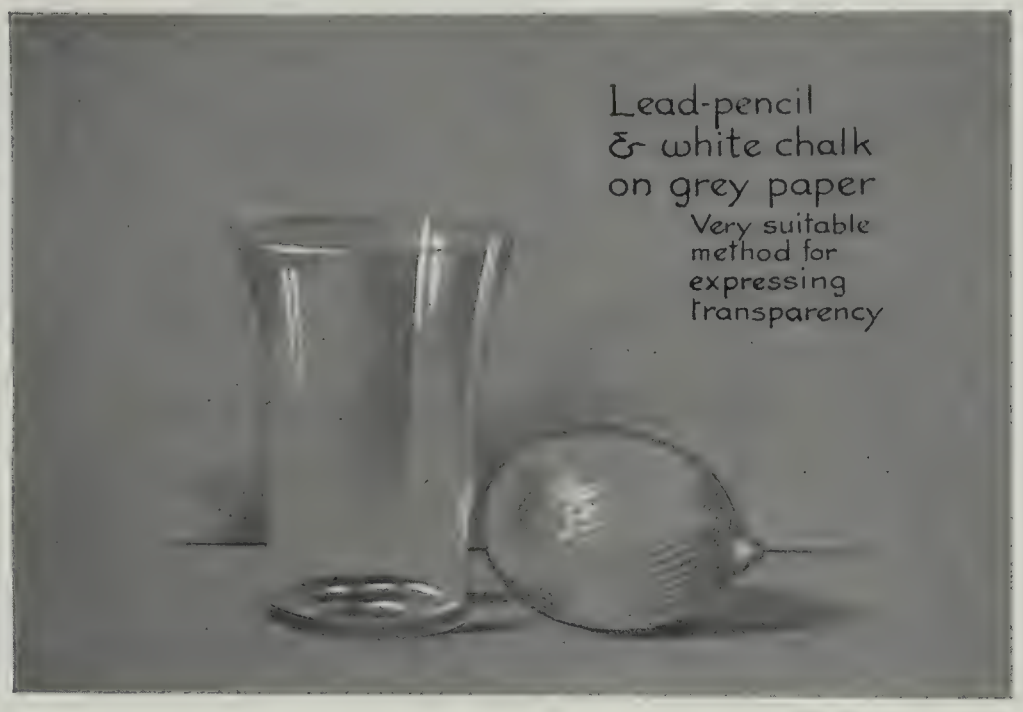
Lines used in shading
not distinguishable



Pencil Drawing
in full light and
shade.

Loose technique, lines
of shading evident,
soft pencil required




Lead-pencil
& white chalk
on grey paper
Very suitable
method for
expressing
transparency

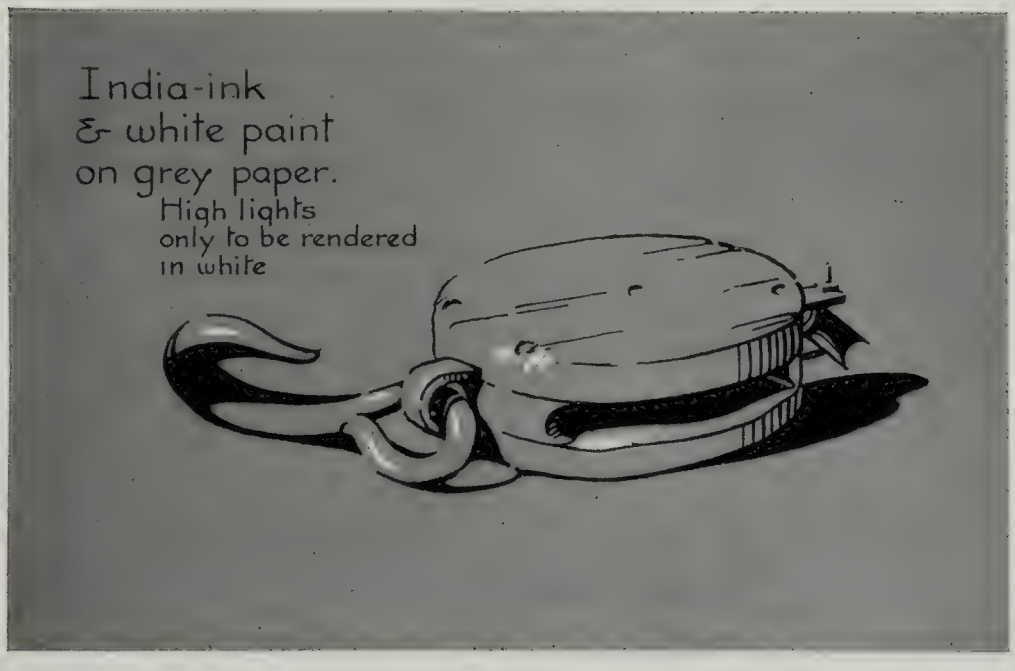

India-ink
& white paint
on grey paper.
High lights
only to be rendered
in white

PLATE 23

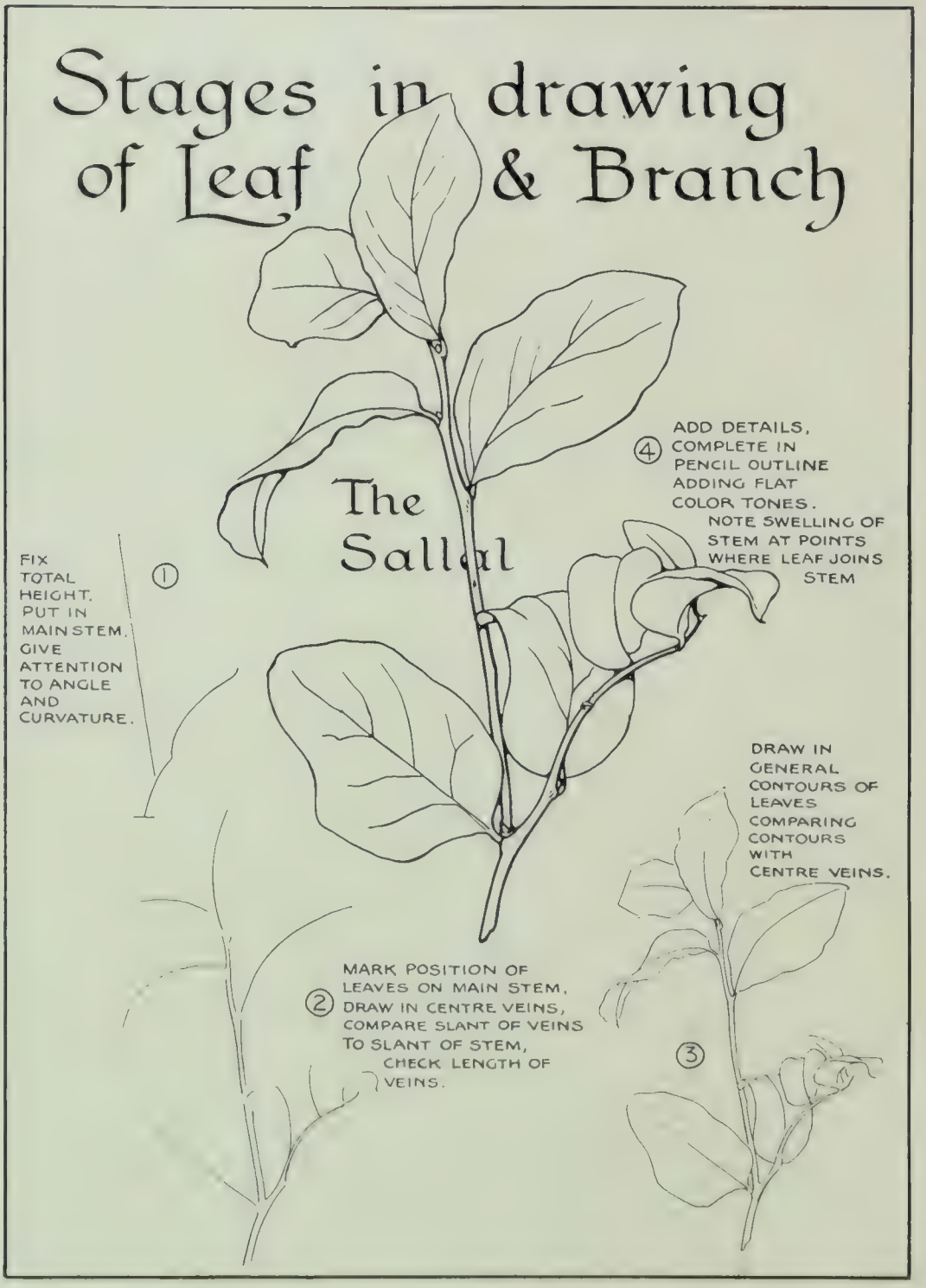
Pastel on grey paper

Nature Drawings

In flat tones

In full colors

In color & pen outline


Stages in drawing of Leaf & Branch
The Salal
FIX TOTAL HEIGHT. PUT IN MAIN STEM. GIVE ATTENTION TO ANGLE AND CURVATURE.
1
MARK POSITION OF LEAVES ON MAIN STEM. DRAW IN CENTRE VEINS, COMPARE SLANT OF VEINS TO SLANT OF STEM, CHECK LENGTH OF VEINS.
2
DRAW IN GENERAL CONTOURS OF LEAVES COMPARING CONTOURS WITH CENTRE VEINS.
3
ADD DETAILS, COMPLETE IN PENCIL OUTLINE ADDING FLAT COLOR TONES. NOTE SWELLING OF STEM AT POINTS WHERE LEAF JOINS STEM
4

DESIGN IN ELEMENTARY SCHOOL GRADES

Ornament may be described as everyday art. It may be seen on every object with which our daily doings bring us in contact. It is not a matter which concerns only those who take an interest in art, since all people, however little interested in art, feel compelled to ornament their dwellings, their belongings, and their persons. It is peculiar to no particular period nor to any one race. From all of which it would seem reasonable that people in general should know something of the common principles underlying the construction of good ornament.

The aim of this Course in Design is to give some idea of these principles to children of the elementary schools, thereby cultivating a sense of order, arrangement, and construction. It should also prove an aid in developing the inventive faculties. Last, but not least, it should stimulate a sense of the beautiful in form and colour.

The question may be asked, "Can Design be taught?" and the answer will depend upon what is understood by the term Design. If by Design we mean pure invention, then the answer is "No." We cannot create the inventive faculty, but we may stimulate the latent germ. If, on the other hand, we understand Design to mean simple arrangement or composition, then the answer is "Yes," for the laws governing composition can be explained and demonstrated.

Two sources of information must be consulted in the study of Design—Nature and Historic Ornament.

Nature will supply the material and inspiration for new work, and also the general laws governing Design construction.

Historic Ornament gives us the results of experience in interpreting these laws. Hence a study of the work of the past should assist us in selecting the best methods to pursue in the present.

The following brief notes and propositions are recognized as fundamental principles of Design in the standard works of Owen Jones, and will be useful to the teacher in planning, teaching, and criticizing Design work in class.

First.—Geometrical Ornament is the most primitive form of decoration. All ornament should be based upon a geometrical construction, this construction being decorated by conventional representations of leaves, flowers, or other natural objects.

Note. Geometrical Ornament, consequently, forms the basis of all the design in our school course, and in the early stages in all grades the exercises will be entirely geometric. (Plates 28 to 30 and 32.)

Second.—The majority of geometrical ornaments may be divided into three groups :—

(1) Continuous or ribbon-like patterns (bands).
(2) Enclosed spaces (panels).
(3) Unlimited flat patterns. (Plates 28 to 32.)

Third.—The three elements of form may be stated as :—

(1) The straight line—that is, vertical and horizontal.
(2) The inclined line.
(3) The curved line.
    (*a*) Arc or regular curve.
    (*b*) Variable curves.

Fourth.—Harmony of form consists in the proper balancing and contrasting of these three forms, and no composition can be perfect in which any one of them is omitted. (Plate 27.)

Fifth.—All junctions of curved lines with curved, or of curved lines with straight, should be tangential. (Natural Law.)

Note. The more the decoration approaches a suggestion of natural growth the more essential the observance of this rule becomes. (Plate 26.)

Sixth.—Flowers or other natural objects should not be used as ornament, but conventional representations founded upon them, sufficiently suggestive to convey the intended image to the mind.

(Universally obeyed in the best periods of Art; equally violated when Art declines.)

(Plates 44, 45, and 52.)

Seventh.—In surface decoration all lines should flow out of a parent stem. Every ornament, however distant, should be traced to its branch and root.

Note. This leads to the consideration of Radiation, a very important point in natural construction and also in decorative construction. Note in nature the number of forms, such as plants, flowers, shells, insects, etc., in which the structural lines radiate from a common centre. (Plate 26.)

Eighth.—"Those proportions will be most beautiful which will be the most difficult for the eye to detect."

A rectangle of proportion of 4 to 8 will be less pleasing than one of proportion of 5 to 8. Note division of windows and door-panels in Plate 27.

In like manner a circle will be less pleasing than the ellipse or oval. (Observation of natural forms will

show predominance of the oval over the circle.) (Plate 33.)

COLOUR

At this stage a few notes on colour will be in order, as all children find an added interest in design work when allowed the use of colour. For this reason designs should be coloured from the beginning. Although rules will not make a colourist, yet much faulty colouring can be avoided by the observance of a few simple rules in the early stages, and by a systematic arrangement of colour problems as detailed month by month in the course of study.

These problems should be set before the pupil and explained by means of the colour chart, so as to avoid loss of time in aimlessly trying out colours. (Plate 35.)

Broadly speaking, there are three ways in which colours may be harmoniously combined :—

(1) By using several tones of the same colour. (Monochromatic Harmony.)

(2) By direct contrast of colours opposite to each other on the colour circle. (Complementary Harmony.)

(3) By using related or similar colours—those next to each other in the colour circle. (Analogous Harmony.)

(Black and white as contrasts to colour values may be used at all times.) Other harmonies are usually variations or combinations of these three.

Pure colours may be modified by a slight addition of another colour—for example, blue may be modified by the addition of a very small quantity of yellow or red.

The resultant colours, green-blue or purple-blue, are then known as hues of blue.

A pure colour may be subdued or greyed by the addition of its complementary colour, or of black—for example, red is greyed by the addition of green or black ; green is greyed with red or black.

Young children will use colours in their pure state, but with increasing age and practice will find that the use of various hues and greyed colours will give more pleasing results.

Colours are also classified as Warm or Cold colours. Warm colours are those in which red or yellow predominate. Cold colours are those containing much blue. Warm colours are much more insistent or noticeable than cold colours, hence a small amount of a warm colour, such as red or orange, will balance a much larger quantity of a cold colour, such as blue-green.

Greyed colours and cold colours generally make the most pleasing backgrounds.

When considering any combination of colours in a given pattern it is important to note the tone values of the colours employed. The final effect will often be influenced as much by the judicious contrasting of light and dark tones as by the difference in colour. (Plates 38, 39, 42, 43, and 46.)

The following propositions will also be useful in directing the use of colour :—

(1) No composition can be perfect in which any one of the three primary colours is wanting, either in its natural state or in combination.

(2) Colours should never be allowed to impinge upon each other. Ornaments of any col-

our may be separated from grounds of any other colour by edgings or outlines of white, gold, or black.

(3) Ornaments in any colour or gold may be used on white or black grounds without outline.

(4) In tones of the same colour a light tint on a dark ground may be used without outline.

(5) As in harmony of form, those compositions will be most beautiful where the combinations of colours are most subtle. (Owen Jones.)

Different colour combinations are given with individual exercises in the course set for the grades, and examples shown in Plates 38, 39, 42, 43, and 46.

GROUP I

Ruler Work

The first exercises in these grades will consist of copying from the teacher's examples. After acquiring facility in measurement and the use of the ruler by copying a number of examples of any given type, the pupils should be encouraged to make small sketches in which they can arrange repeats of lines or simple forms on similar plans for themselves. From these sketches one should be selected by each pupil, and worked out accurately with the ruler.

Exercises at this stage will consist of simple repetitions in borders or simple subdivisions of panels, such as square, rectangle, and triangle.

Begin with simple units of measurement, and increase the difficulty in measurement units and arrangement as the exercises progress. (Plates 28 and 29.)

Attention should be given in these exercises to the correct method of holding ruler and pencil when measuring and ruling. Pupils should have properly sharpened pencils if accurate work is to be obtained. The pencil should be held vertically over the line of the ruler to ensure the point exactly coinciding with the marks upon the ruler. The ruler should be held in position by the spread fingers of the left hand at the centre of ruler.

Have all borders or panels placed squarely upon the paper and centred, or placed slightly above centre. Pupils should learn and use the following terms in connection with :—

(*a*) *Lines*—Vertical, horizontal, oblique, parallel.

(*b*) *Figures*—Square, oblong, triangle, diagonal, diameter.

(*c*) *Angles*—Right angle, acute angle, obtuse angle.

GROUP II

Grades II., III., and IV.

Ruler Work as in Group I., with the Addition of Simple Curves

Having mastered to some extent the use of the ruler and become familiar with some of the simple combinations of straight lines, the pupils should proceed to further decorate these constructions by the addition of very simple curves.

The pupil's eye will not be sufficiently developed at this stage to detect subtle variations of curve, therefore the early exercises should employ curves of a regular geometrical nature, though of course these will be drawn freely and without the aid of the compass. Later on, in Grades V. and VI., many of these exercises may be worked again with compass, ruler, and set square as a purely geometrical exercise.

As with the exercises in the previous group, the pupil should first copy various designs carefully, and then should be encouraged to attempt the composition of similar patterns under the direction of the teacher. (Plates 30 and 31.)

GROUP III

Grades V., VI., VII., and VIII.

Geometric Construction decorated by Freehand Motifs

Pupils having mastered simple geometric ornament, considerable variety may be added to their design work by decorating these geometric skeletons or areas by the addition of simple motifs based on nature forms.

These motifs should possess the three principles of Repetition, Contrast, and Variety, and the necessity for these principles should be illustrated by such references to nature as :—

(1) The symmetrical repetition of parts in the majority of animal and vegetable forms.

(2) The opposing or contrasting nature of these parts.

(3) The variety in line and proportion.

Perhaps the simplest illustration of these points is the oval or egg form, which enters so largely into the composition of many beautiful natural forms. Examination of the figure (Plate 33) shows that the two sides are alike—that is, they are repeated, but are placed in opposite or contrasted positions ; and that, lastly, the curve, unlike that of the circle, changes or has variety.

Look for as many examples of forms as possible, verifying and illustrating these three principles—REPETITION, CONTRAST, VARIETY. (Plate 33.)

The group of curves shown on Plate 33 illustrates the pleasing effect of variety in line and proportion, beginning with the single geometrical curve, the least pleasing of all.

Many simple symmetrical units or motifs for pattern construction can be made by combining straight lines only and then curved lines, or both, on the plan of this natural construction. Some profitable time can be spent in inventing new combinations, watching always for that variety of line and proportion which so enhances the charm of natural forms.

This can be illustrated by cutting folded paper, or by blackboard sketches of some of the suggested forms on Plate 34.

Having gathered new material for decoration, the next step will be to suggest various ways of arranging the units shown on Plate 34, so as to form simple patterns.

Reference to Plate 36 shows that the simplest of all arrangements is a repetition of any given motif. This repetition may be given variety in various ways, as shown in the same plate.

At this stage inventiveness should be encouraged.

Let the pupils sketch to small scale two or three suggestions for a border, using motifs of their own composition. From these one might be selected by each pupil, and worked out to full size in colour. (Plate 42.)

Decoration of Panels : Radiation from the Centre.

The decoration of the panel may now be considered. The simplest form will be that in which the units or motifs are repeated around the centre of the figure in regular order, or, in other words, radiate from the centre.

Before working an exercise of this nature the pupil's attention should be again called to the principle of radiation as illustrated in natural forms. (Plate 26.)

The simpler figures, such as the square and triangle, should be dealt with first, and then the more difficult, such as the circle, hexagon, etc. Decorate first with straight line motifs, and then proceed to more difficult and complex forms. (Plates 37, 40.)

Plates 37, 41 show two different methods of setting out to decorate a simple panel. In the first examples on Plate 37 it will be noticed that one motif only is repeated in each figure, and that unity of effect is obtained by the use of some suitable geometrical figure to tie the parts together. It is also shown that the figure so used may be left in its simple form or further elaborated. These additional figures have the same effect as the horizontal lines in the bands on Plate 36. The illustrations on Plate 41 show that the same effect may be obtained without actually drawing this binding figure, and it would be well to compare the methods used with those shown in the border arrangements in Plate 36.

It will be seen from the illustrations of the last two

exercises that by varying the figure and keeping the same arrangement, each type of exercise may be made to vary from extremely simple to exceedingly difficult examples, according to the simplicity or complexity of the motif chosen for the decoration.

The construction of the groundwork for all the patterns in Group III. and subsequent work will involve the use of the set-square and compass, and attention should be given to the method of using these instruments.

The set-square is used in conjunction with the ruler, and not by itself. (Plate 54.)

See that compasses are held by the top and not by the two legs.

The following terms should be understood, and used in connection with all geometrical construction :—

Circle, semi-circle, radius, arc.

Rhombus, equilateral triangle, hexagon.

Pupils should be able to construct these figures, and also to work the following exercises with either set-square or compass :—

(1) Bisect a line or angle.

(2) Erect a perpendicular.

(3) Draw parallel lines. (Plates 53 and 54.)

All of these operations will enter into the construction of the framework of all designs.

GROUP IV

Grades VII. and VIII.

Ornament based on Nature Forms

The work of this group brings the pupil to the highest type of ornament—namely, that which is based on a

nature form. The common error at this stage is to make the underlying geometric construction fit the nature form, whereas the opposite should be the case. It should also be clearly pointed out that, while the identity of the chosen nature form is desirable, an attempt at the " real " is not. Better to err on the geometric side than on the representative. Better to keep the design simple in line and mass than attempt all the vagaries and intricacies of nature. Just how far one may go in the conventionalization of a nature form is a matter of opinion, but it is generally accepted that the identity of the chosen form should at least be apparent, and it is not considered good design to use a running, twisting nature form for a stiff design within a square.

The essential character of the nature form should be extracted, and this essential character is generally found to be not far removed from the geometric. The secret of all good decoration is good line and mass, consequently these are the two elements which should be stressed in decorating any shape.

This is the stage where historic ornament becomes very useful. Let the pupils copy a few good examples of decoration from various periods representative of different peoples of the world, and therein observe the methods of the master designers of all time. Pupils may then make their own drawings from nature, and attempt to conventionalize them in similar manner. Note the general proposition on this point in the preliminary notes.

Plates 44 and 45 show good examples of historic ornament suitable for copies. The pupil should note carefully the construction and also the way in which

the designers have used the essential characteristics of each form, omitting all unnecessary detail.

Plates 47, 48, and 51 show some simple conventions based upon familiar forms. Let pupils copy these in the same manner as the examples of historic ornament, and then have them endeavour to give their own renderings of similar forms. Such renderings may then be arranged in borders and panels on similar lines to previous work. Further suggestions for the decoration of bands and panels with conventional representations of nature forms are shown on Plates 49, 50, and 52.

LETTERING IN ELEMENTARY SCHOOL GRADES

Use a blunt, soft pencil in Junior Grades. When lettering in ink a round-pointed pen is better than a sharp one—it gives a broader and more uniform stroke.

In Junior Grades ruled foolscap should be used, and one space allowed between each line of lettering. Use capital letters only at this stage. (Grades III., IV., V.) (Plate 55.)

The small letter alphabet should be commenced in the Sixth Grade, and, combined with capitals, be continued throughout Grades VII. and VIII. (Plate 56.)

Let all names and titles on drawings and designs be nicely spaced and lettered, not written in running hand. (See Plate 59.)

Good lettering depends primarily on good form and good spacing. Do not indulge in fancy or individualistic letters until the basic form is thoroughly grasped.

The basic form is the most readable, and legibility should be the first consideration.

Treat lettering as drawing. Each individual letter has to be drawn with due regard to its shape. Do not ask for speed. Draw with deliberation.

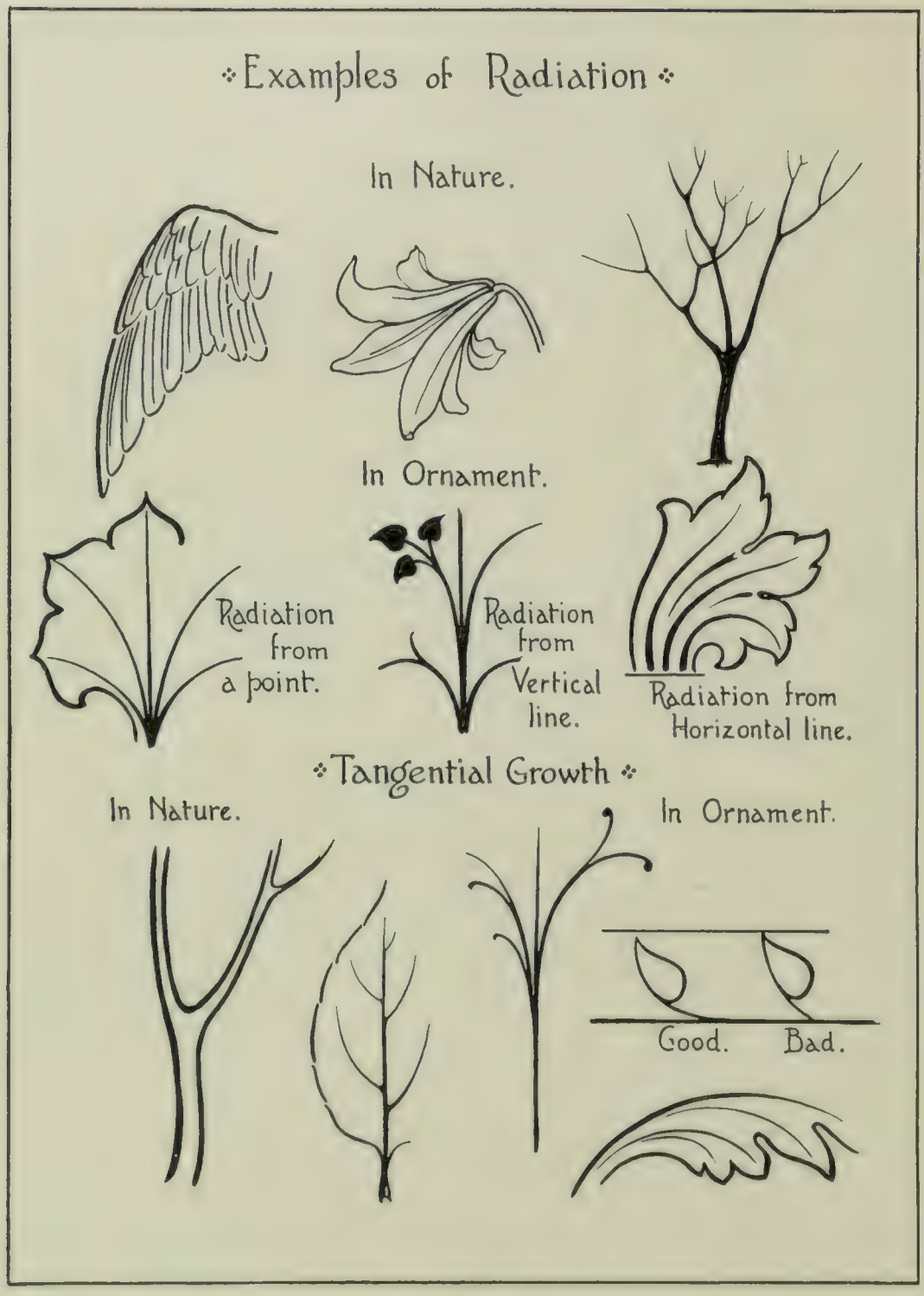
Teachers will find pupils readily take to lettering or "printing," as they erroneously call it, and it is an offshoot of the Drawing Course that will stand them in good stead in later years.

Many blackboards would look better if the lessons thereon were lettered and not written. Writing on a vertical blackboard is neither easy nor natural. Lettering would come much easier after a thorough knowledge of the forms had been gained by the teacher. Make use of various coloured chalks in putting lessons on the blackboard, taking care to use only such chalks as will "carry" to the eye at the back of the room. Orange, yellow, light blue, and green are all good. Purple, dark blue, and dull red do not carry. Colour appeals to a child, and his eye is more likely to connect with the blackboard if coloured chalk is used.

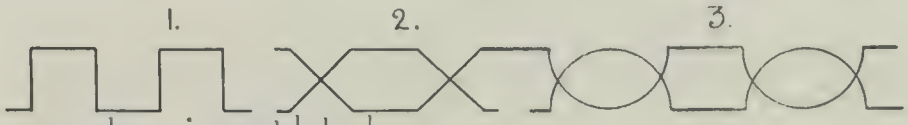
Keep letters round, square, or narrow as the case may be, and make clear that all the letters are based on the straight line and the circle.

Plates 57 and 58 show examples in spacing that may be used in lettering of inscriptions, verse, prose, advertisements, etc.

ILLUSTRATIONS TO ELEMENTARY SCHOOL DESIGN AND LETTERING


Examples of Radiation
In Nature.
In Ornament.
Radiation from a point.
Radiation from Vertical line.
Radiation from Horizontal line.
Tangential Growth
In Nature.
In Ornament.
Good.
Bad.

Illustrations of Harmony of Line and Form



1 & 2 show incomplete harmony

4. Greek Temple.

5 Roman Arch.

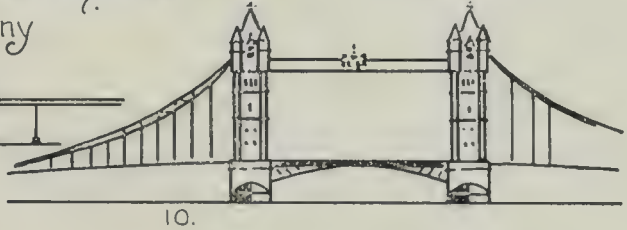
6.

7.

Gothic Tower 8.

6 & 9 Incomplete harmony

9.



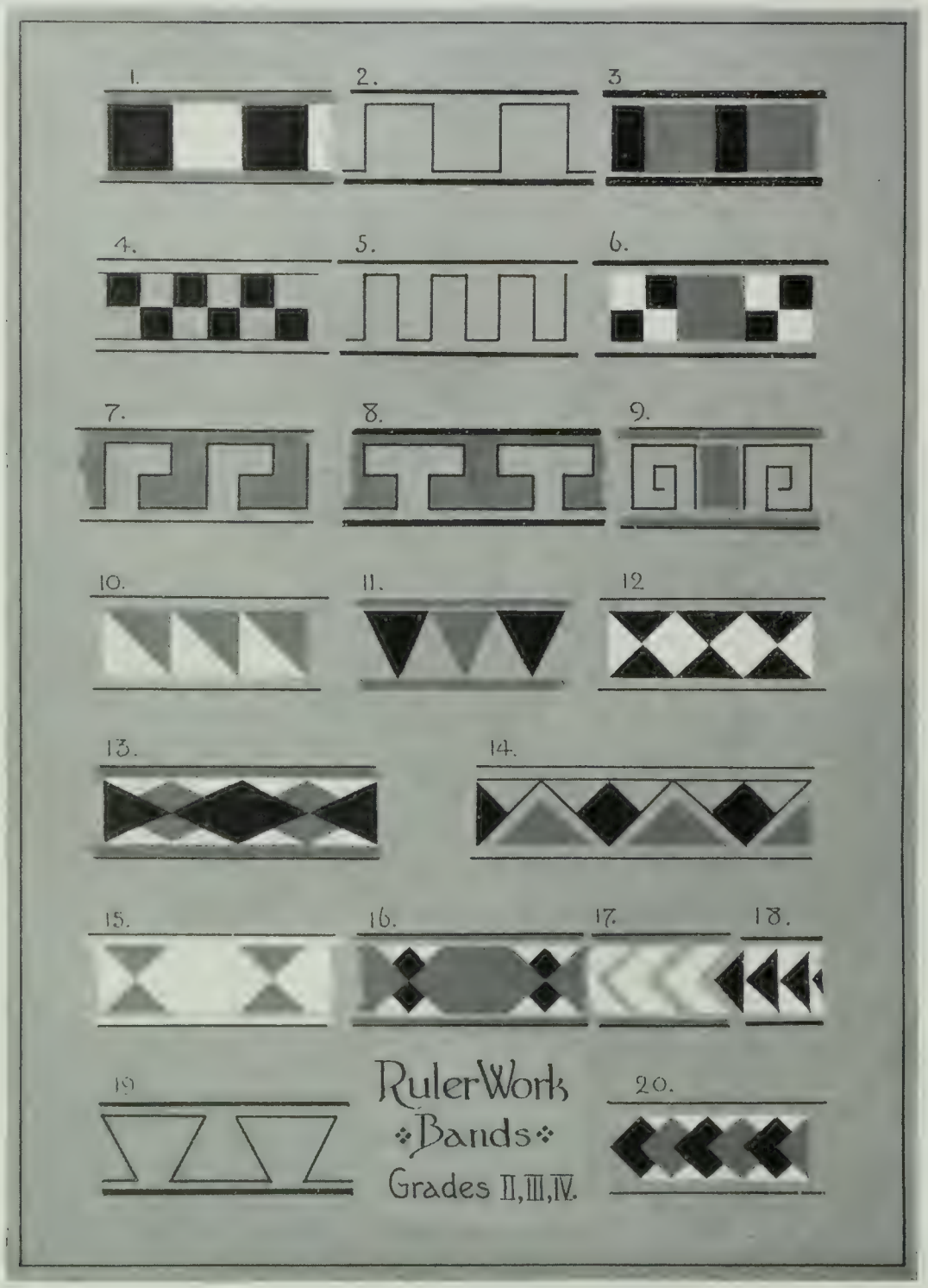
10.

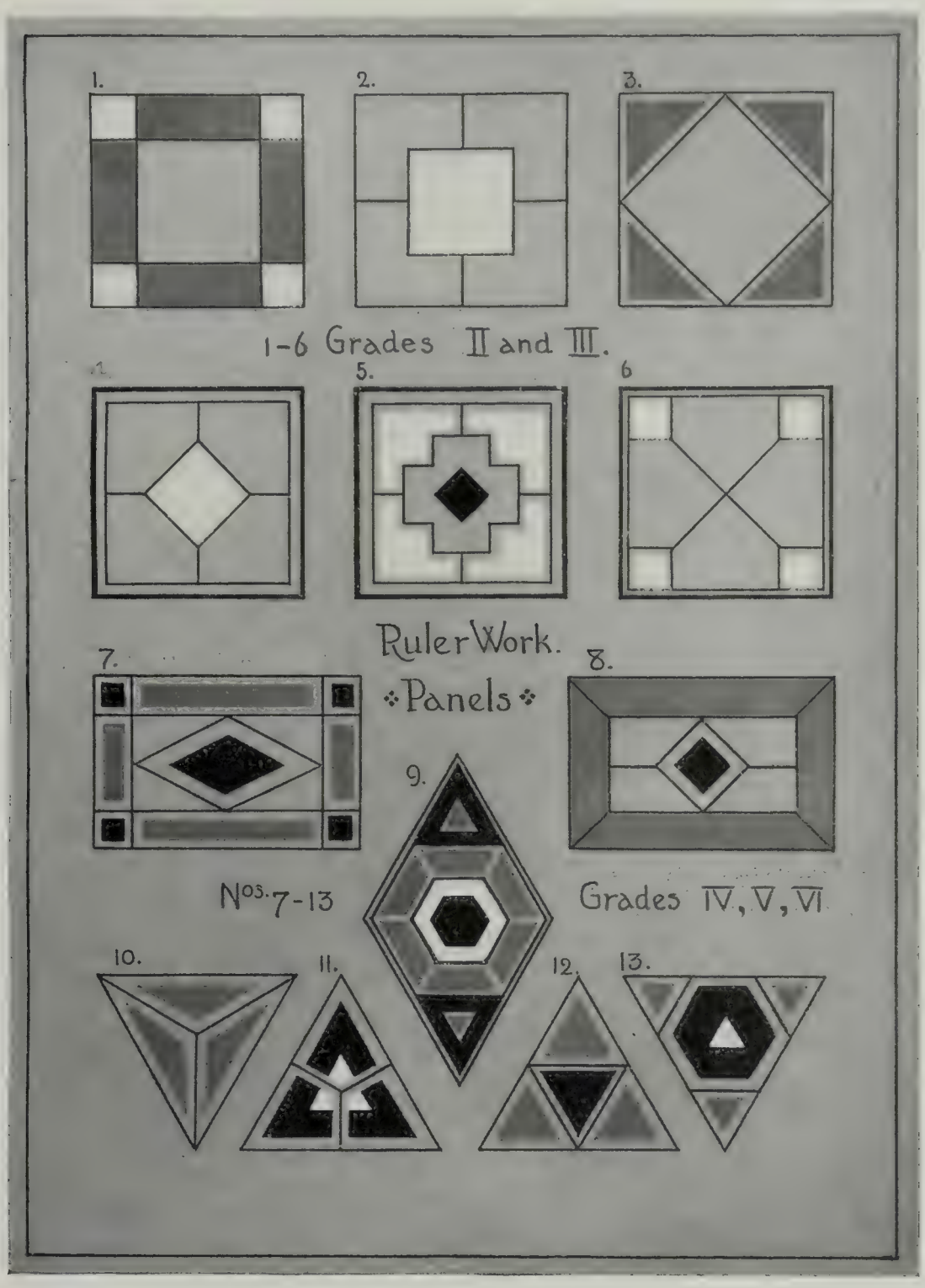
11.

Examples of proportion.

Bad. - Good. -

PLATE 28


1.
2.
3.
4.
5.
6.
7.
8.
9.
10.
11.
12.
13.
14.
15.
16.
17.
18.
19
20.
Ruler Work
Bands
Grades II, III, IV.


1.
2.
3.
1-6 Grades II and III.
4.
5.
6
Ruler Work.
Panels
7.
8.
9.
Nos. 7-13
Grades IV, V, VI
10.
11.
12.
13.

Bands decorated with Simple Curves
Grades II, III, IV.
1.
2
4
5.
6.
7.
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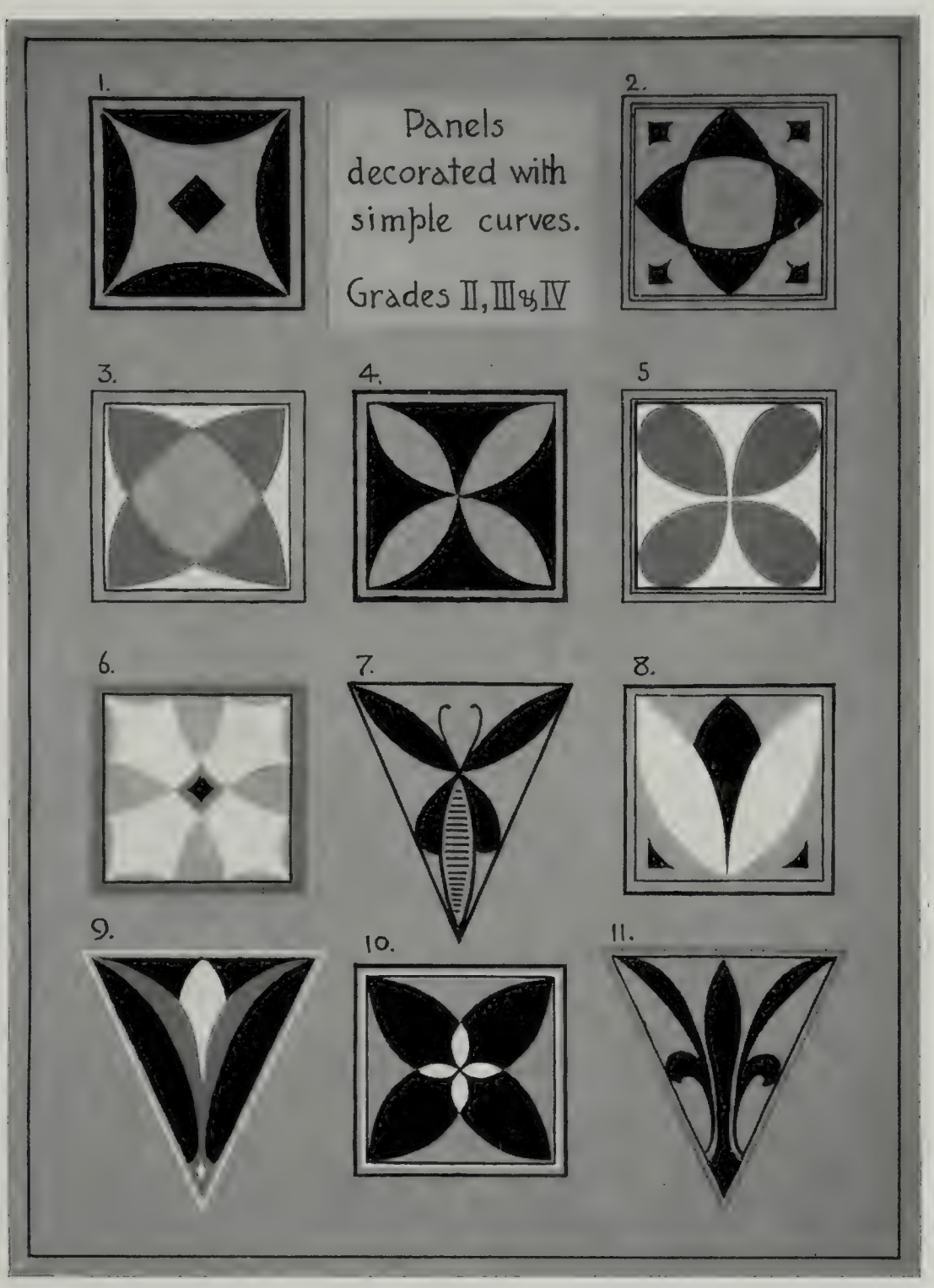
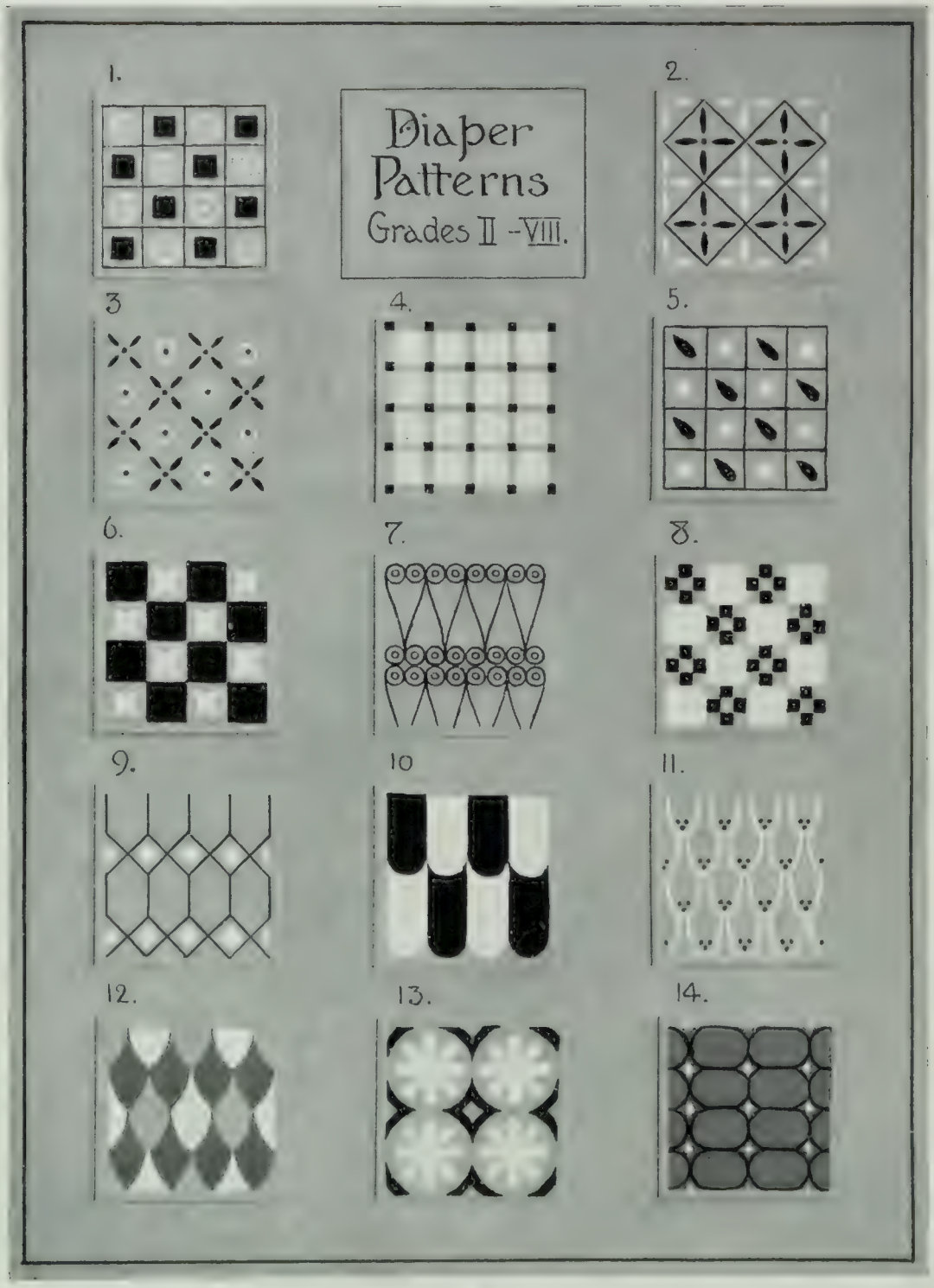
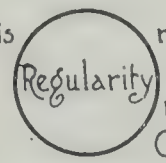
14
15.
16.
17.

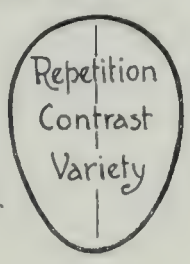

1.
2.
Panels
decorated with
simple curves.
Grades II, III & IV
3.
4.
5
6.
7.
8.
9.
10.
11.


Diaper
Patterns
Grades II -VIII.
1.
2.
3
4.
5.
6.
7.
8.
9.
10
11.
12.
13.
14.

Repetition Contrast and Variety

The circle is 

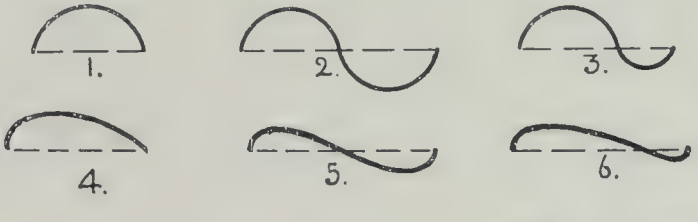
not often found in natural forms. Curvature is regular, consequently not very interesting.



The Oval is the basic form of many natural objects.

The following curves are arranged in order of interest with regard to variety in curvature and proportion.

Regular curves 1, 2, 3 are less pleasing than Variable curves 4, 5, 6.



Variable curves also combine well with straight lines.

Decorative Motifs based upon nature forms and embodying three important principles of natural construction,
Repetition,
Contrast,
Variety.

Note. Regular curve and greatest width at centre. Result uninteresting.

Greatest width placed above or below centre. Result more pleasing because of variety.

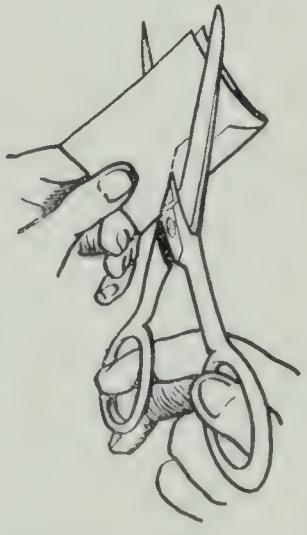
Most interesting because more variety shown in direction of line.

Copy a few of the given figures noting the variations of line and proportion and then try to construct new ones.

Straight line Motifs.

Curves.

Straight & Curved lines.



Cut motifs from folded paper. Watch for variety of line and proportion.

Colour Chart

Primary Colours:-
Red, Blue, Yellow.

Secondary Colours:-
Purple, Green, Orange.

Hues:-
Nos. 2, 4, 6, 8, 10, 12.

Greyed Colours:-
The colours shown in the centre.

Complementary Harmonies:-
Any two opposite colours
e.g. 1 and 7, 3 and 9 or
4 and 10.

Analogous Harmonies:-
Any series of consecutive
colours as 1, 2, 3. — 5, 6, 7.
or 2, 3, 4, 5.

Suggested arrangements for constructing band patterns from any given motif similar to those shown on Plate

1. Simple Repetition.

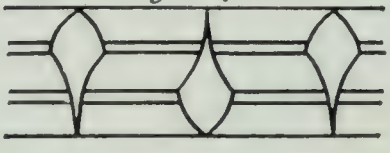
2.

2.3.4. Simple Repetition with contrasting bands.

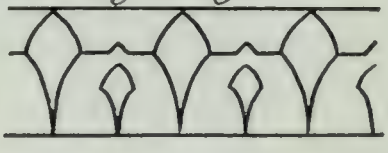
3.

4.

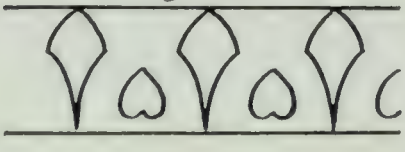
Repetition with
5. variety of position



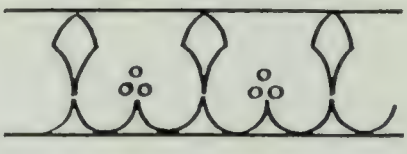
6. Variety of size.



7. Variety of form.



8. The Link Border.



9 Panel Border.

Note:– The addition of horizontal lines or bands binds the pattern together and makes contrast with the vertical lines of the repeats.

Bands of varying proportions are more pleasing than regular divisions.

Panels with Radiation from the centre — simple repetition of any symmetrical motif combined with geometrical figures.

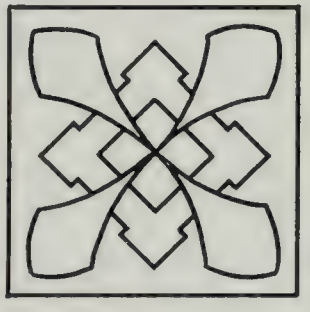
1.

No.1. is unsatisfactory because all the lines tend to lead the eye from the centre. The design lacks unity.

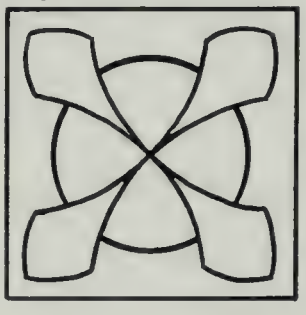
2.

The contrasting lines of the small square and circle in figs. 2 and 4 tie the parts together and give a better harmony of line.

3.

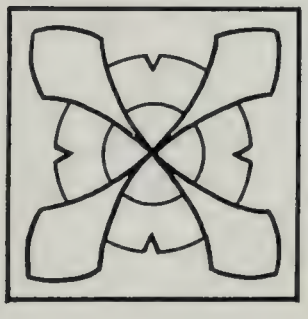


4.



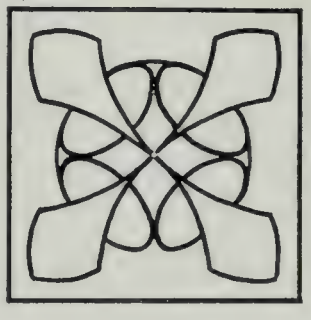
In figs. 3, 5 and 6 the simple geometrical tie lines have been elaborated.

5.



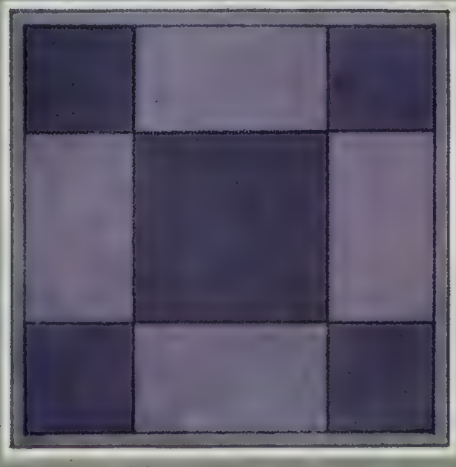
The square, circle and octagon are the best figures to use in the filling of the square, while the triangle, circle and hexagon are best adapted to the filling of the triangle.

6.



Colour Harmonies for Grades II–IV.

Monochrome.

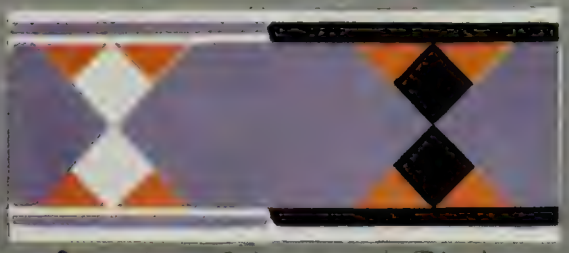


Monochrome.

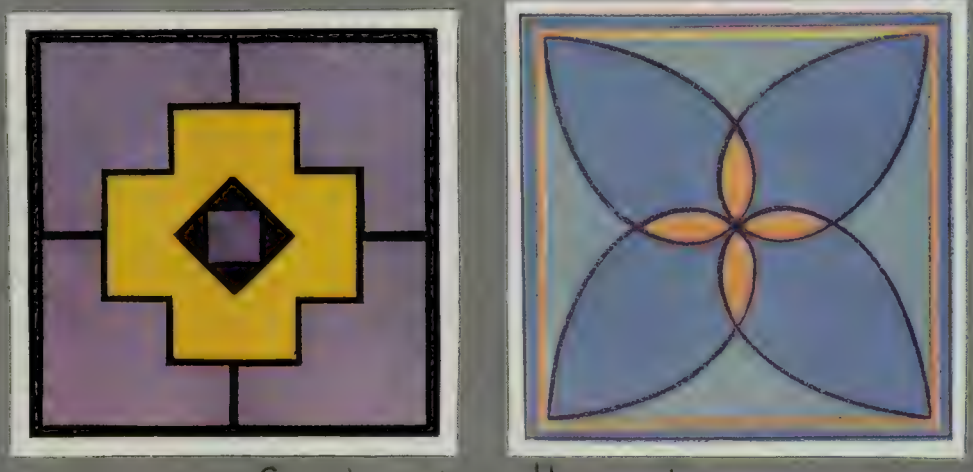
Two Secondary Colours.

Complementary Harmony.

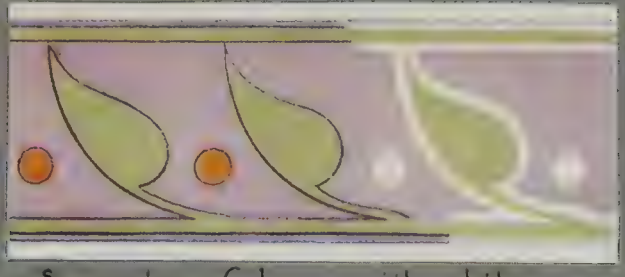
Colour Harmonies, Grades II–V.



Secondary Colours with Black & White.



Complementary Harmonies.



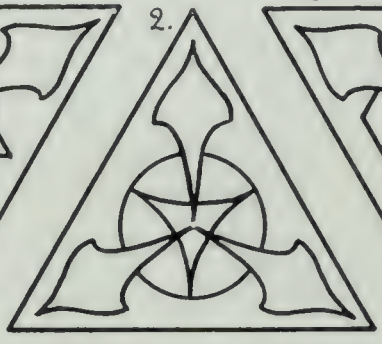
Secondary Colours with white.

Panels with Radiation from the centre (continued)

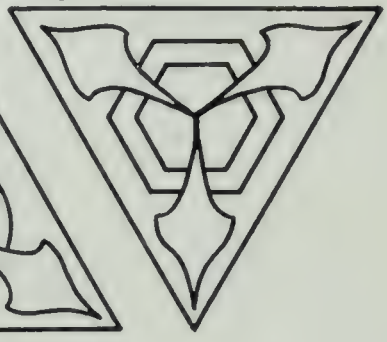
All points mentioned on previous plate apply to these illustrations.

1.

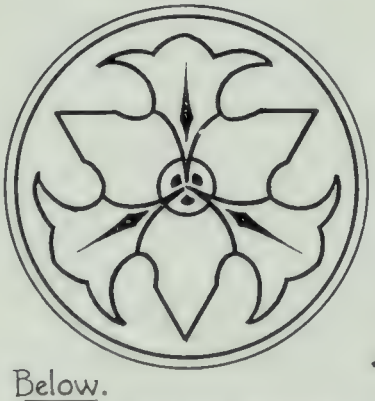
2.



3.



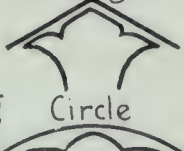
4.



Triangle

Square

Hexagon

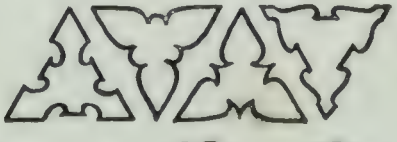


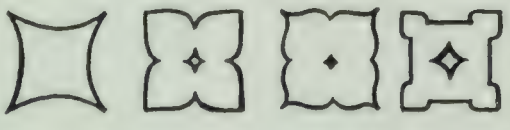
Circle

5.

Below.
Suggestions for developing common geometrical figures used in panel decoration.

Note in all examples how the forms used in decoration are adapted to the space to be filled.





Panels with Radiation from the centre.

The exercises on this page show the same geometrical arrangements as the previous examples but without the use of geometrical figures to bind the motifs together.

1.

When the motifs enclose spaces as in the shaded portions of fig.1, those spaces answer the same purpose as the small square in fig.2, Plate 40

Figure 2 gives the same effect by repeating the motif alternately large and small.

2.

3.

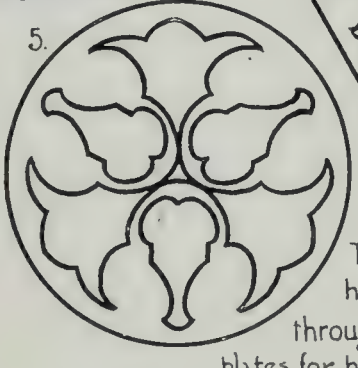
Fig.3 is the same repeat as fig.2 with the small forms reversed.

In figures 4, 5, 6 & 7 more variety is obtained by using two different motifs.

4.

Compare these arrangements with Plate 38.

5.



6.

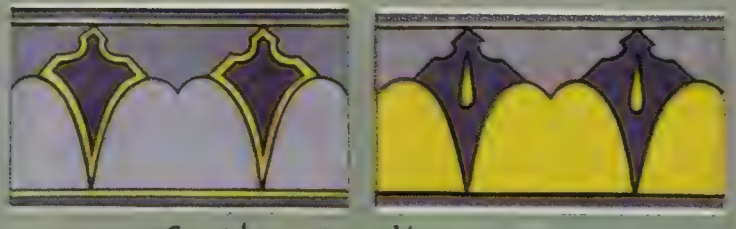
Note how central connecting links improve figs. 5, 6 & 7.

7.

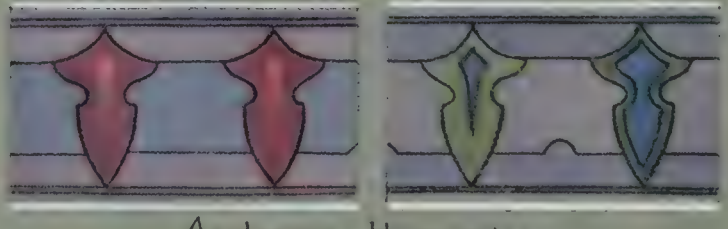
The same motifs have been used throughout the last four plates for purposes of comparison.

Colour Harmonies, Grades V–VII.

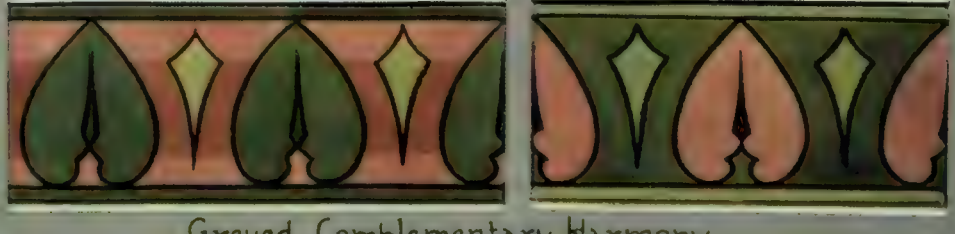
Monochrome.



Complementary Harmony.



Analogous Harmonies.

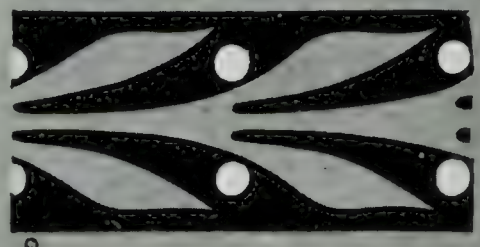


Greyed Complementary Harmony.

Colour Harmonies, Grades V-VII.
1.
Black and White with complementary colours
2.
Greyed Primary Colours
3.
Analogous.
Black with complementary colours
4.
5.

Examples of Historic Ornament

1. Egyptian.

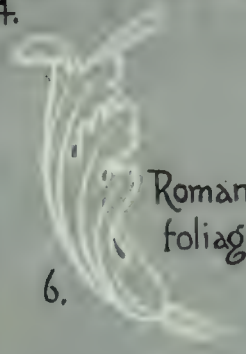


2.

3.

4.

5 2,3,4,5 Greek.



Roman foliage

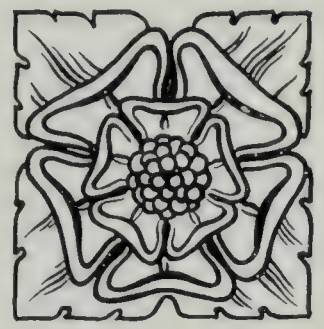
6.

7.

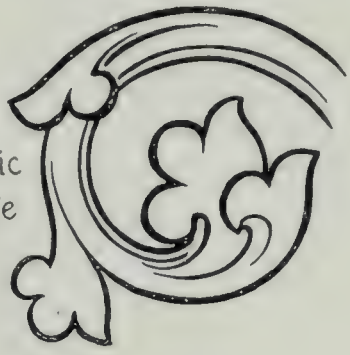
8.

7,8. Gothic foliage.

Examples of Historic Ornament



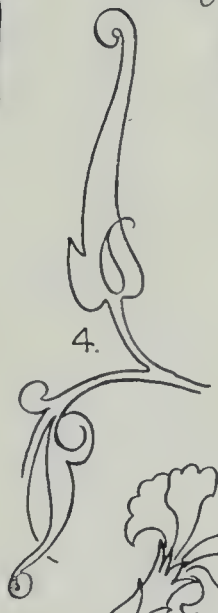
1. Gothic flower.



2. Early Gothic foliage

3.

3 & 4. Early Persian leaf-like ornament.



4.

5.

5, 6, 7. Later Persian flower forms.

6.

7.

Peacock Feathers.

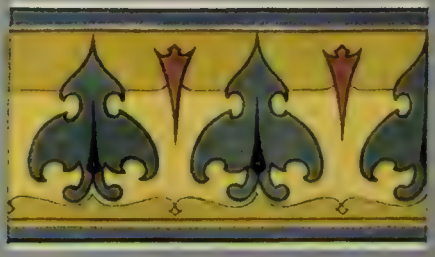
Italian

Japanese

Japanese Butterfly.

Colour Harmonies, Grades VII–VIII.

Split Complementary Harmony.



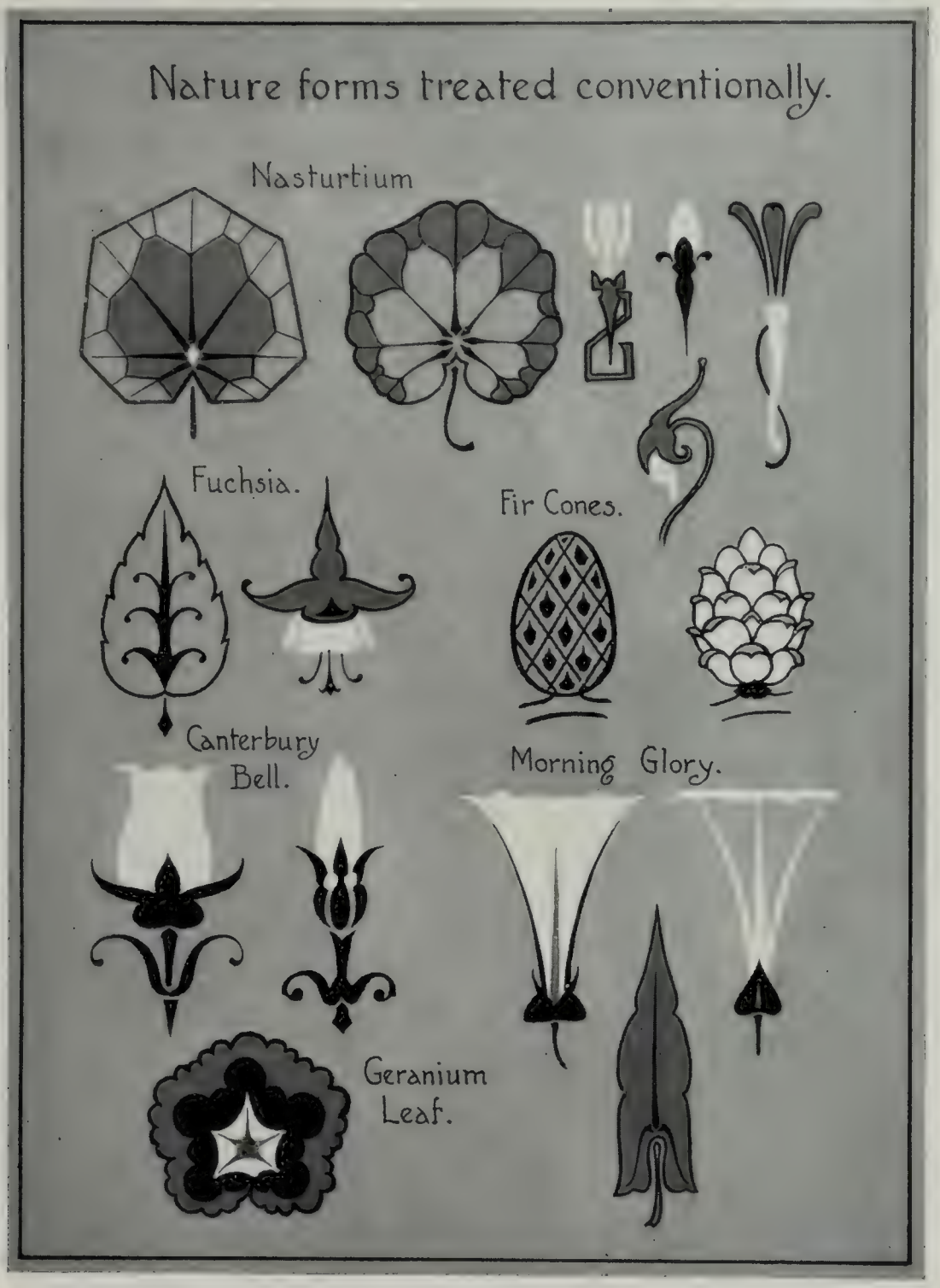
Greyed Primary Colours.

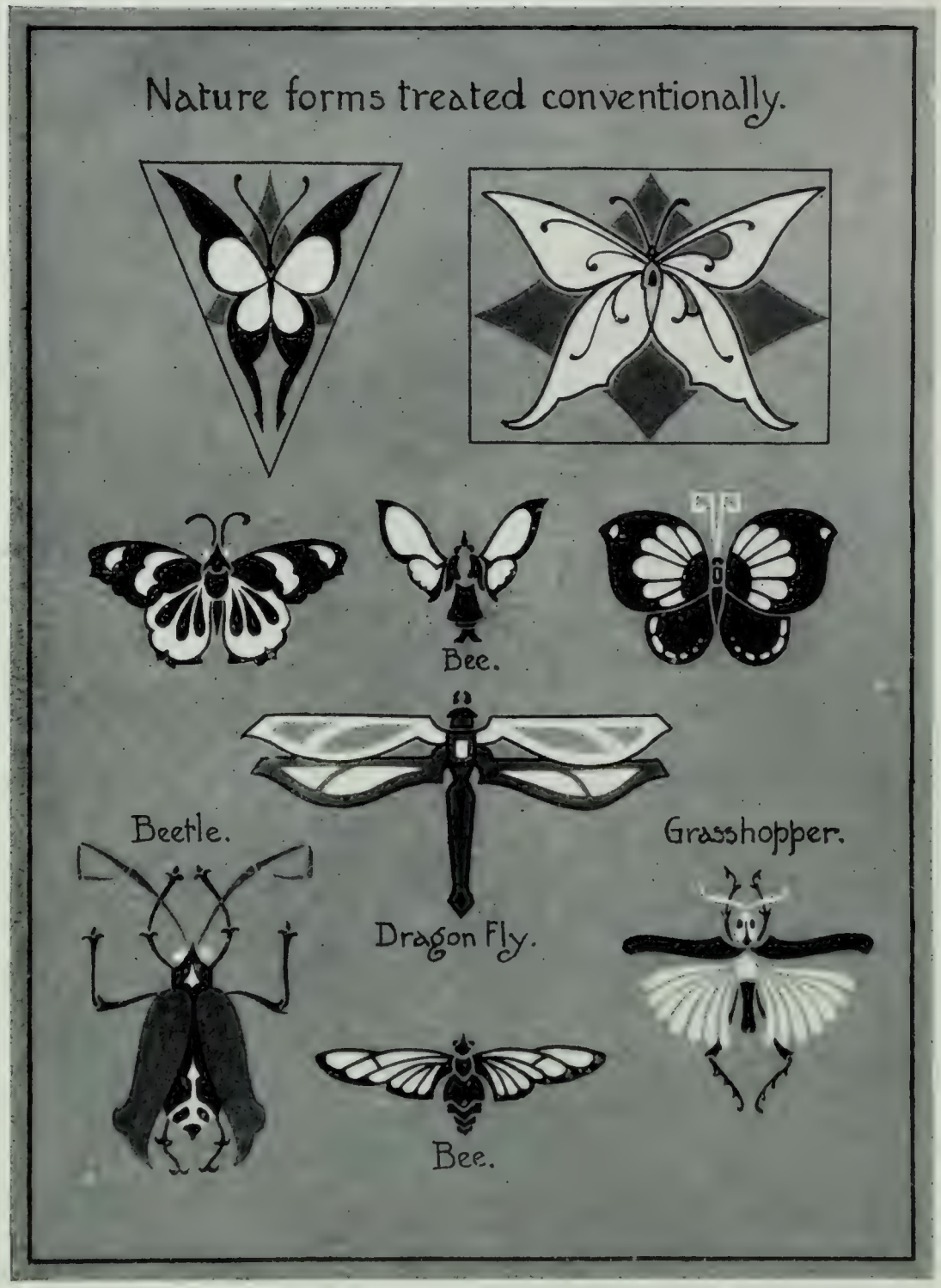
Greyed Primary Colour with black.

Analogous Harmony.

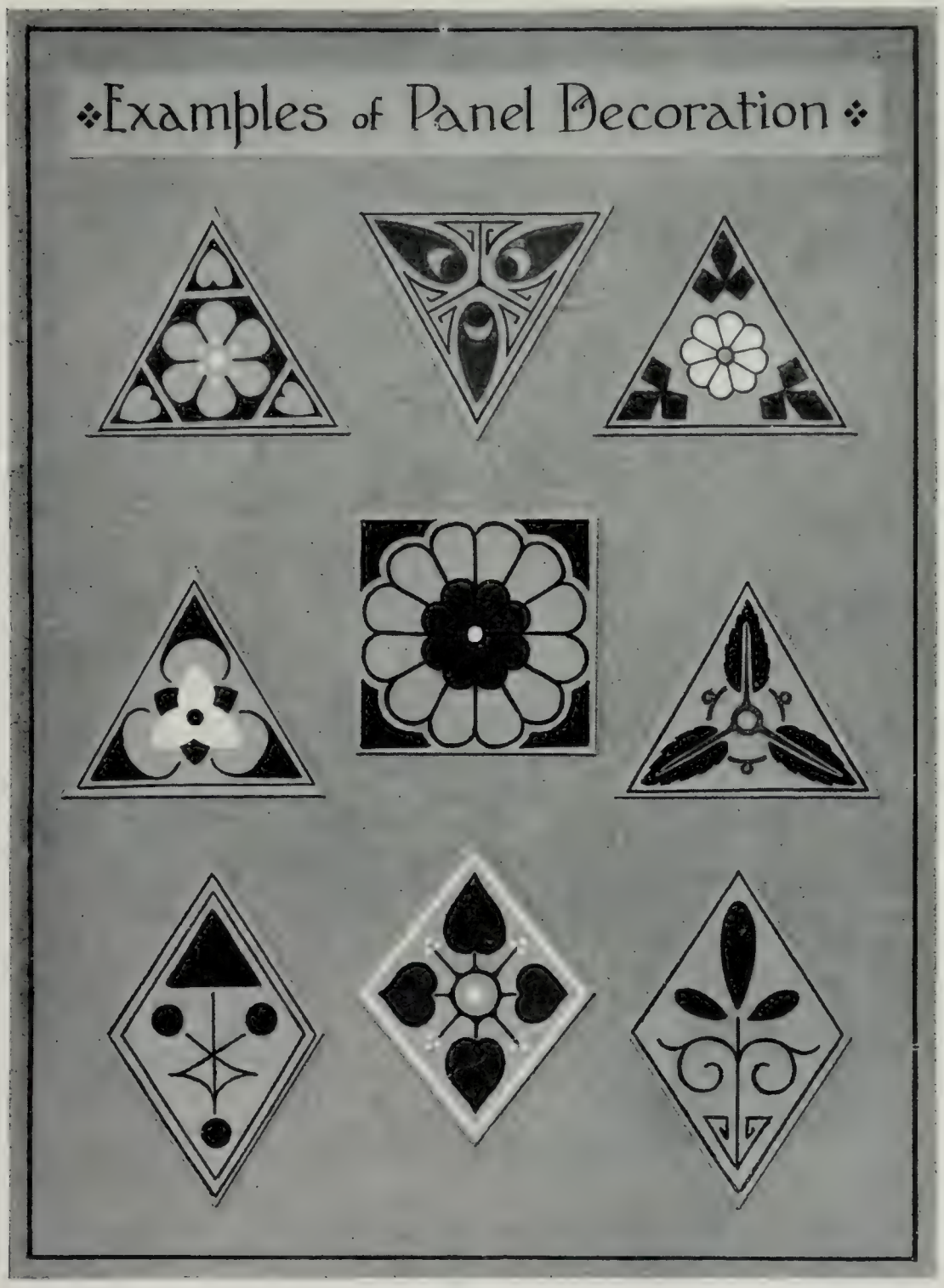
Split complementaries with black.

Analogous colours with black.

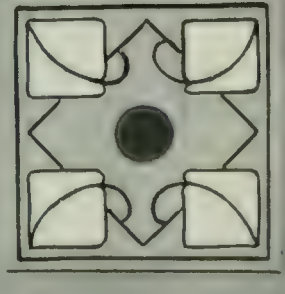

Nature forms treated conventionally.
Nasturtium
Fuchsia.
Fir Cones.
Canterbury Bell.
Morning Glory.
Geranium Leaf.


Nature forms treated conventionally.
Bee.
Beetle.
Dragon Fly.
Grasshopper.
Bee.

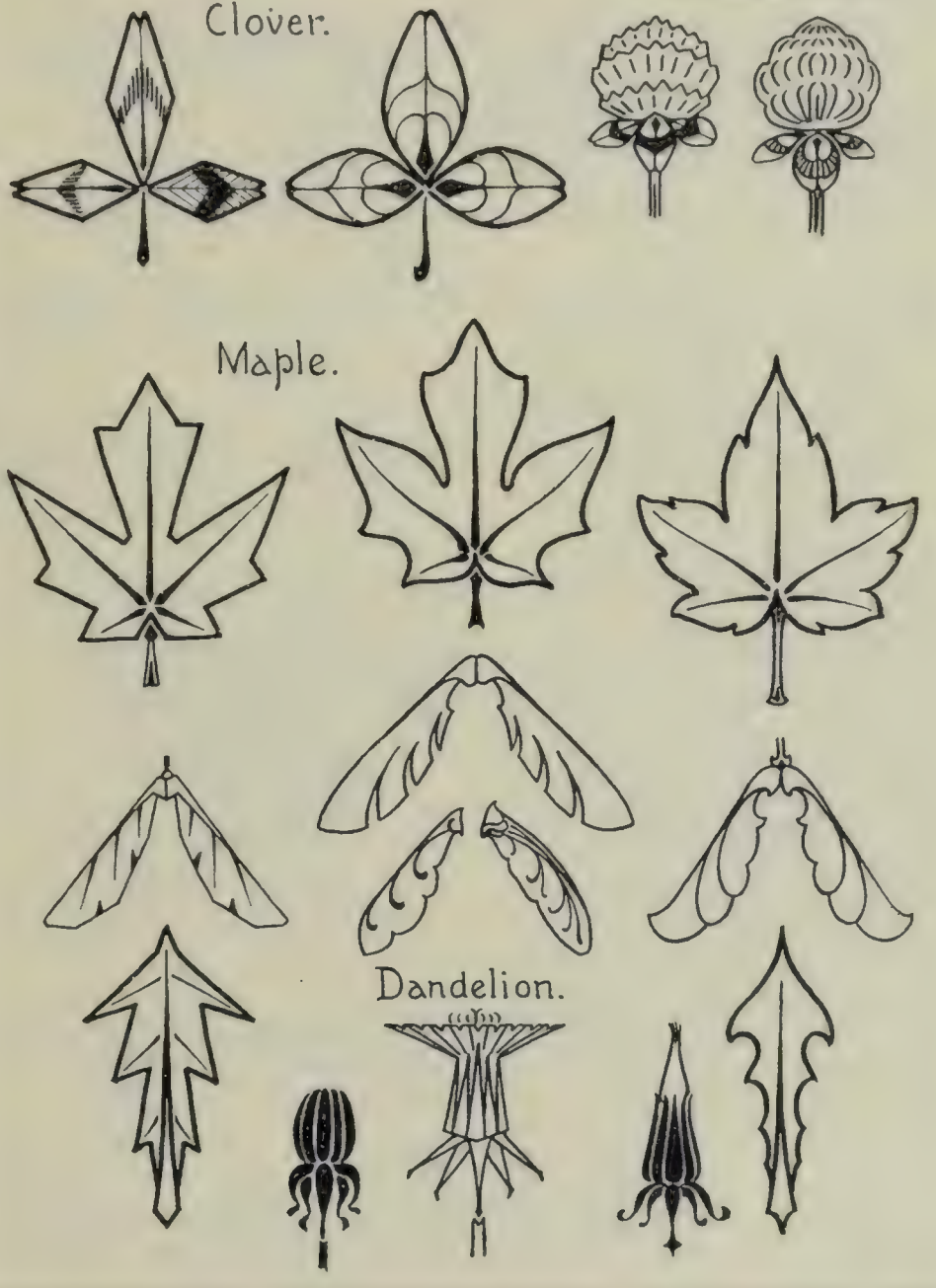
Examples of Panel Decoration



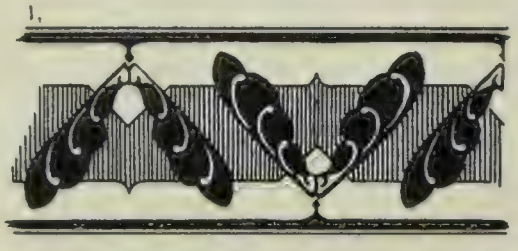
Examples of Panel Decoration

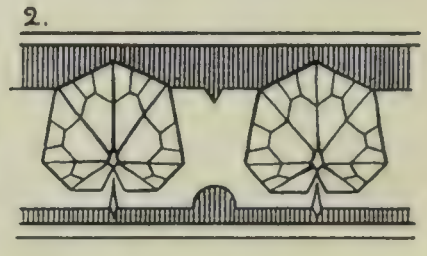


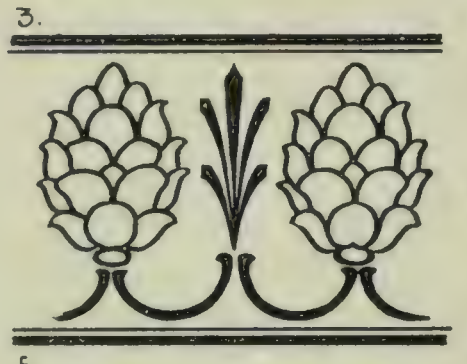
Nature forms treated conventionally for purposes of decoration.

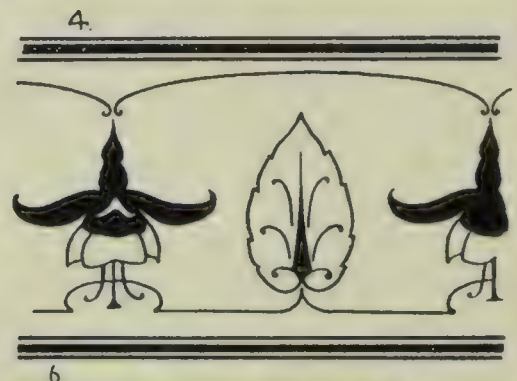


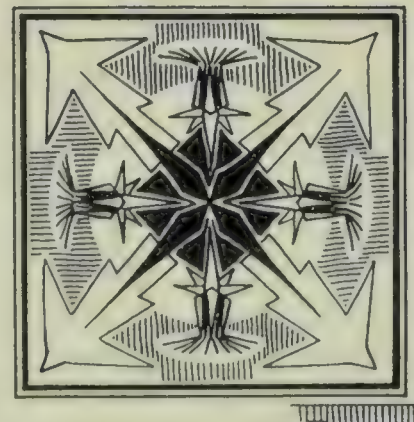
Nature Forms in Ornament



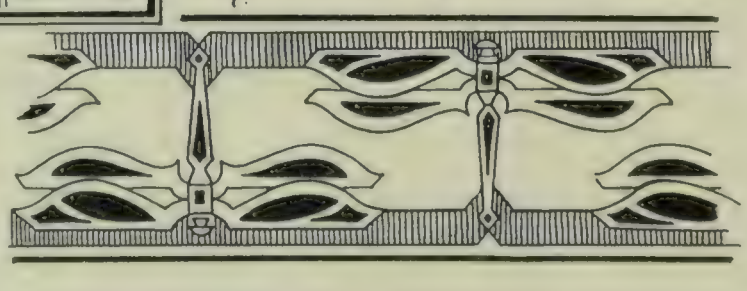








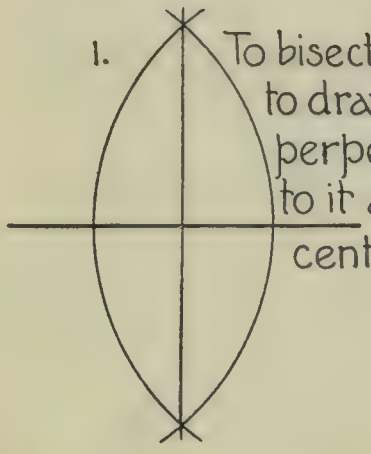
1. Maple.
2. Nasturtium.
3. Pine cone.

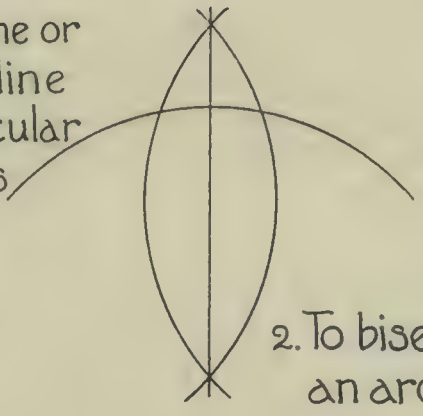


4. Fuchsia.
5. Dandelion.
6. Clover.
7. Dragon fly.

Geometric Problems

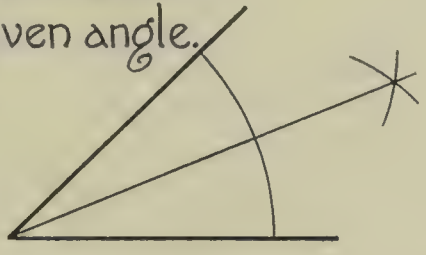
1. To bisect a line or to draw a line perpendicular to it at its centre.

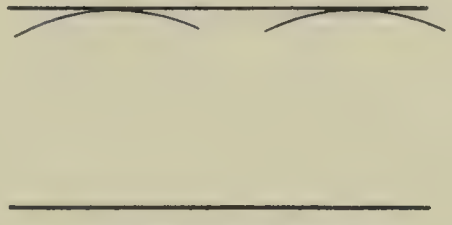




2. To bisect an arc.

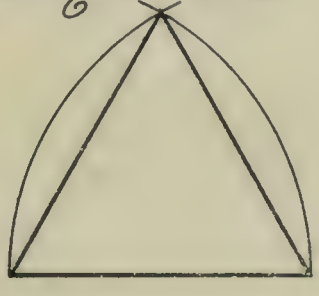
3. To bisect a given angle.

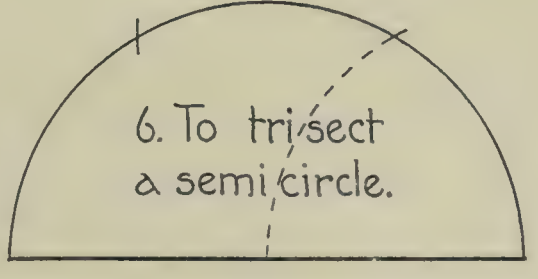




4. To draw a line parallel to a given line at a given distance.

5. To construct an equilateral triangle on a given base.

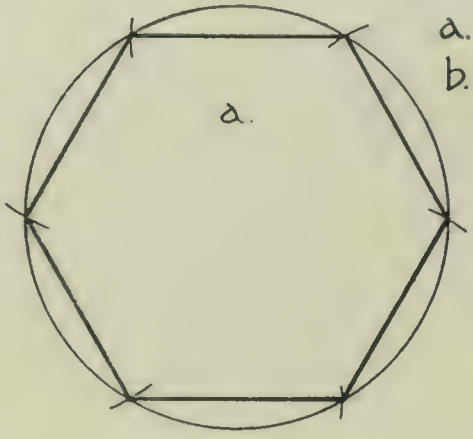


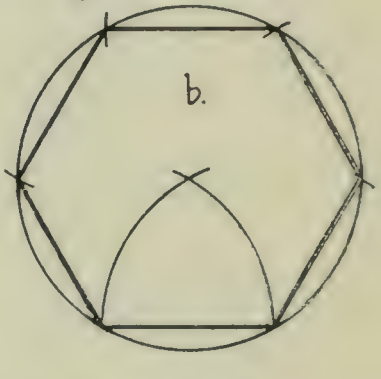


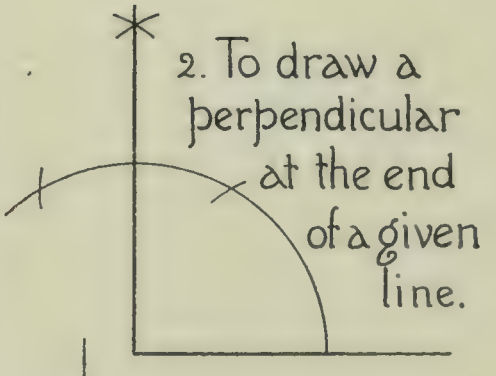
6. To trisect a semicircle.

Geometric Problems

1. To draw a regular hexagon,
   a.- in a given circle,
   b.- on a given base.

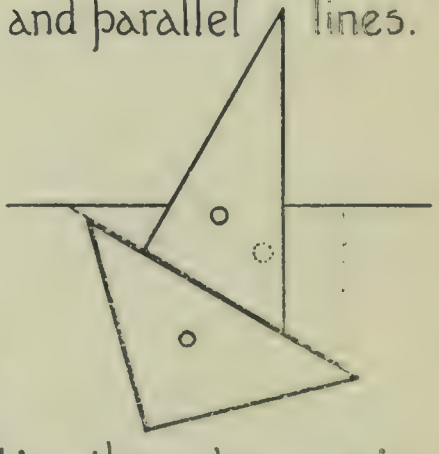


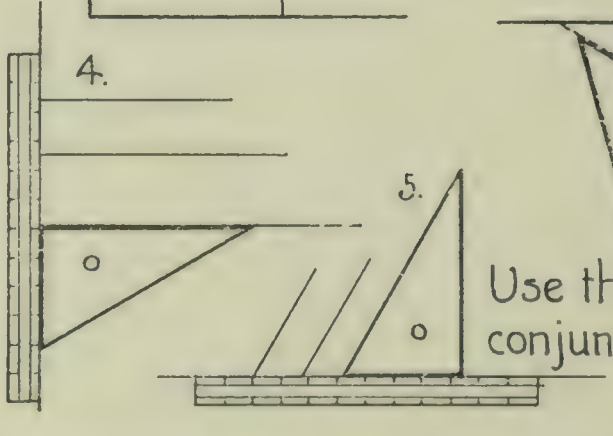




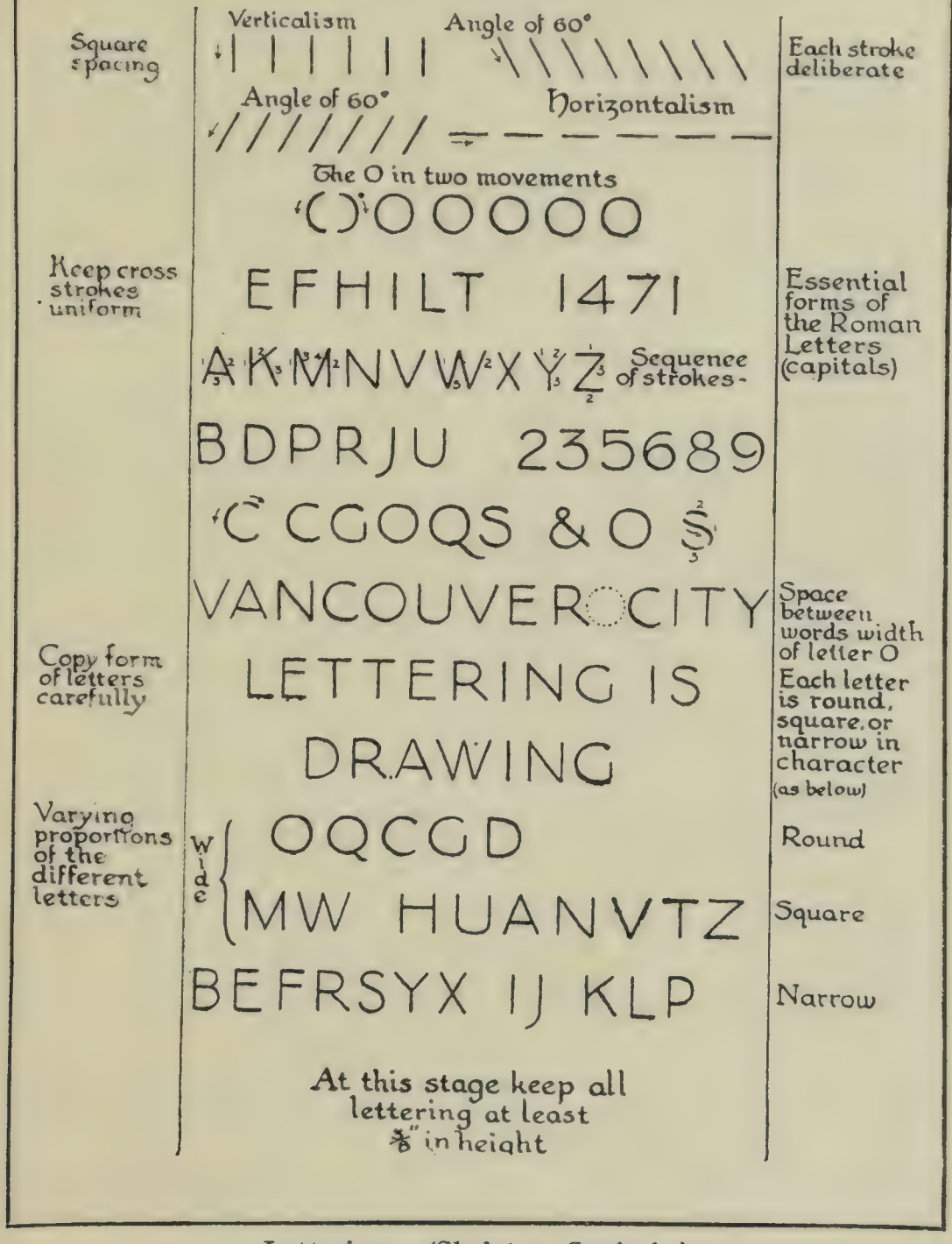
2. To draw a perpendicular at the end of a given line.

3-5. Use of setsquares for perpendicular and parallel lines.



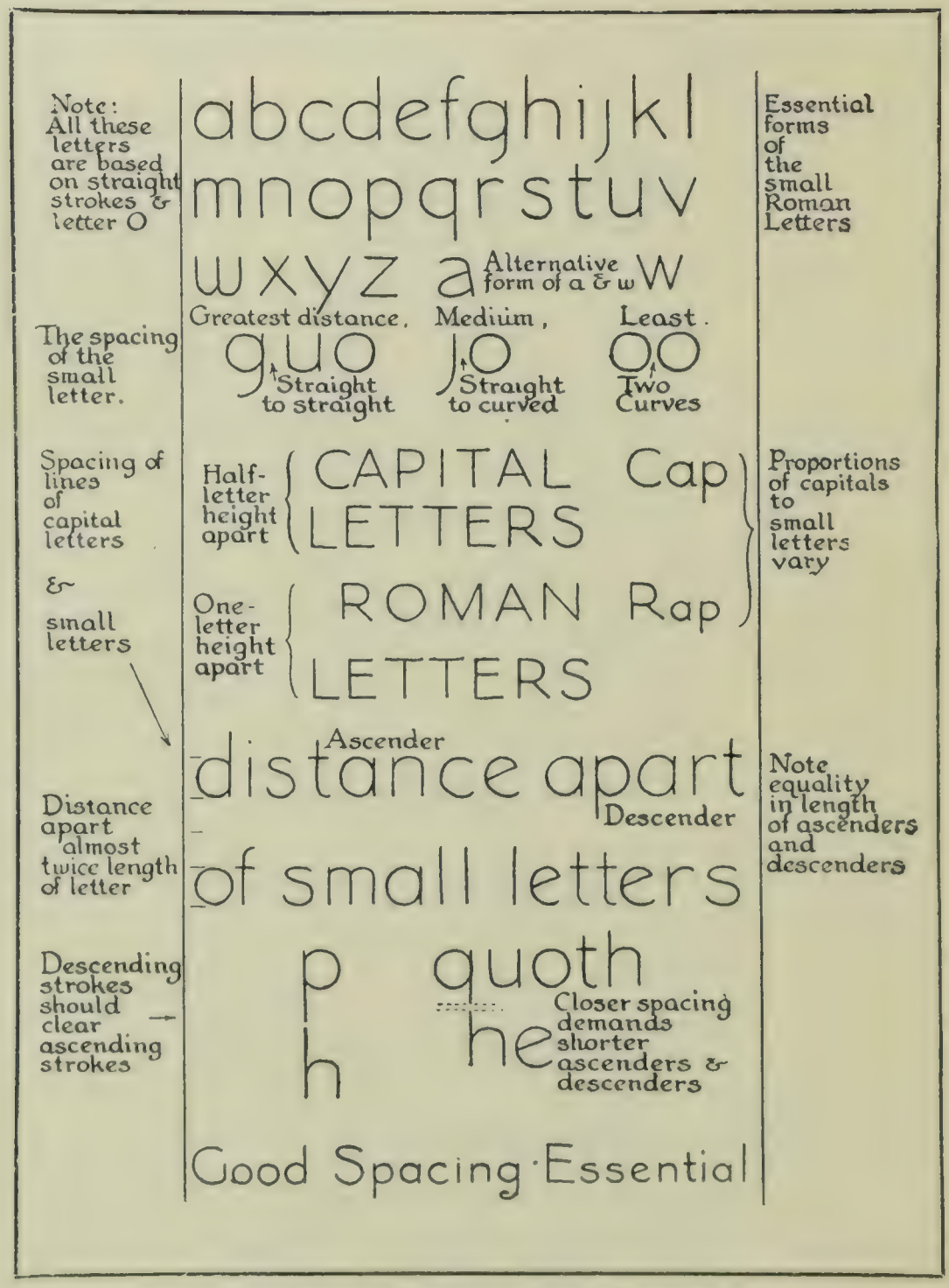


Use the setsquare in conjunction with the ruler.



Lettering. (Skeleton Capitals.)

PLATE 56



Lettering. (Skeleton Small Letters.)

SPACING OF AN INSCRIPTION

1, 2, 3. Show same text in varying margins

Bottom margin always greatest

Love suffer-
eth long &
is kind

Love suffer
eth long &
is kind

Good margins make for legibility & beauty: better wide than narrow.

Word may be broken in order to get uniform length of line

1. Large lettering, small margins

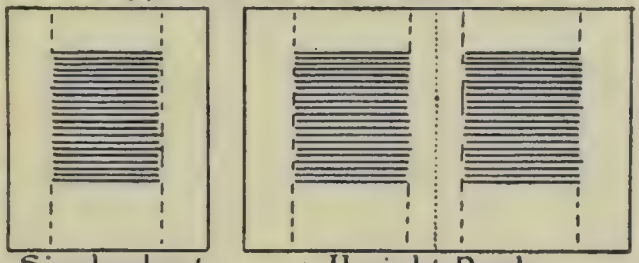
Love suffer-
eth long &
is kind.....

2. Small lettering large margins

3. MEDIUM

SPACING OF PROSE

Foot margin twice as wide at bottom as at top. side margins greater than top & less than bottom



Single sheet — Upright Book

Proportion of margin to text largely matter of taste and tradition; better wide than narrow

SPACING OF POETRY

WHERE GO THE BOATS?

No liberty should be taken with metre of poetry in order to have lines uniform in length

Dark brown is the river,
Golden is the sand;
It flows along for ever,
With trees on either hand.

Green leaves a-floating,
Castles of the foam;
Boats of mine a-boating—
Where will all come home?

Inequality of side margins is permissible in poetry

Applied Lettering

MERCURY
MOTORS
LIMITED

Lettering with border top & bottom

SCHOOL CONCERT

A concert will be held
in Central School
on Thursday, 15th Dec.
Tickets price 25 cents
Doors open at 7-30 p.m

Note generous margins

Unless I value
beauty for its
own sake, I can-
not see or hear
or in any way
experience beauty.

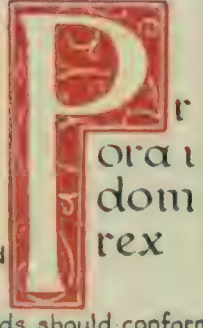
Clutton-Brock

PRIMROSES

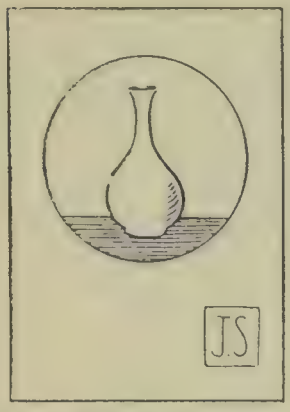
Children of Spring
We tidings bring:
Birds soon will sing
That winters over;
And on the lea
You soon will see
The belted bee
Amid the clover.

We come to say,
All the long day
Lambs are at play
Where we were growing;
The city street
We make more sweet,
And there you meet
Us "all a-blowing."

Ornamental Initials.
Backgrounds may be in plain colour or ornamented with diaper pattern or other decoration.

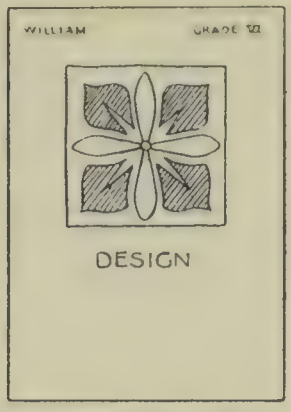


Shapes of backgrounds should conform to letters

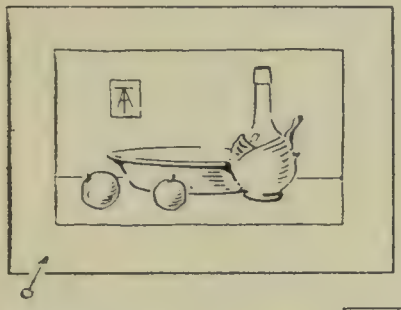


Initials placed in square as contrast to circle form

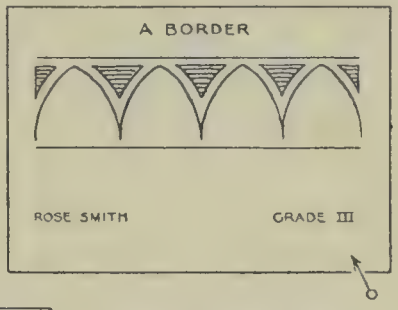
Title placed where it can best balance drawing



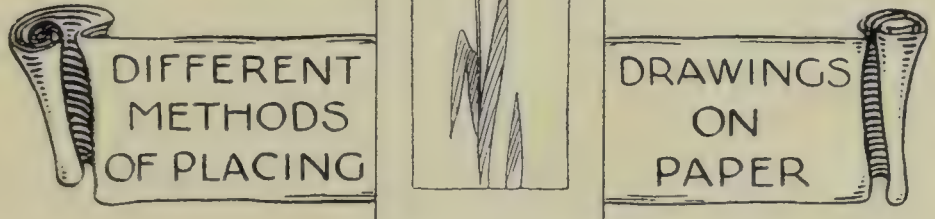
Good distribution of weight, design placed above centre of sheet.



Running a marginal line has the effect of binding the elements in the picture



Border placed above centre and lettering well placed.



Accentuation of length by allowing drawing at base to touch border.

ELEMENTARY SCHOOL COURSE IN DRAWING, DESIGN, AND LETTERING, FROM GRADES II. (A) TO VIII. (B)

Note.—All colour harmonies suggested under heading of *Colour* are intended to be used in conjunction with the month's design.

GRADE II (A)

FEBRUARY

Pencil.—Drill in correct method of drawing horizontal and vertical lines—hat pin ; any square form ; letter L. Divisioning of lines in two parts, by eye.

Nature.—Crocus ; snowdrop.

Design.—Simple border, using ruler. Measuring in inches, horizontal and vertical lines. (See No. 1, Plate 28.)

Colour.—Monochrome in primary colour.

MARCH

Pencil.—Drill in correct method of drawing horizontal and vertical lines—letter H ; playing card ; domino ; French tricolour.

Nature.—Tulip ; catkin.

Design.—4-inch square with horizontal and vertical lines, similar to Nos. 1 and 2, Plate 29.

Colour.—Complementary colours, red and green.

APRIL

Pencil.—Objects involving vertical and horizontal lines ; envelope with stamp in corner ; book ; picture frame ; slate ; T-square.

Nature.—Violet ; buds.

Design.—5-inch square with diagonal lines, similar to Nos. 3, 4, and 6, Plate 29.

Colour.—Complementary colours, blue and orange.

MAY

Pencil.—Any flat object composed of vertical and horizontal edges. Divisioning of lines into halves, quarters, and thirds by eye only. Much of this might be blackboard work, judgment being made at arm's length distance from blackboard.

Nature.—Spring flowers.

Design.—Border, decorated with oblique lines. Measuring in inches and half inches. (Nos. 10, 11, and 12, Plate 28.)

Colour.—Complementary colours, yellow and purple.

JUNE

Pencil.—Review of previous months' work.

The following terms should be understood: Horizontal, vertical, square, parallel, circle.

Nature.—Pansy; leaves.

Design.—Border, with simple curves, similar to Nos. 1, 2, and 5, Plate 30.

Colour.—Monochrome in a secondary colour.

N.B.—Mix the dark tone first and water down a portion of this for the light tones.

GRADE III

SEPTEMBER

Pencil.—Drill in method of drawing oblique lines—set-square; pennant; letter V.

Nature.—Peapod; lilac leaf.

Design.—A ruled border, similar to Nos. 6 and 12, Plate 28.

Colour.—Monochrome in a secondary colour.

Lettering.—Practice in straight-line strokes in preparation for straight-line letters. Letter names and numerals. (Plate 55.)

OCTOBER

Pencil.—Blotting pad; envelope placed obliquely; T-square. Divisioning of lines into halves, quarters, thirds.

Nature.—Maple leaf and key.

Design.—A 5-inch square with horizontal and vertical lines, similar to Nos. 1, 2, and 5, Plate 29.

Colour.—Complementary colours, blue and orange.

Lettering.—Straight-line strokes and figure 0. Allow no rubbing out. Have strokes made direct. Make complete alphabet capitals. Letter names. (Plate 55.)

NOVEMBER

Pencil.—Simple drawing of house or school, using straight lines only; fences; line of telegraph poles; street car tracks; baggage tag; window frames; door.

Nature.—Beet; lemon.

Design.—A ruled border with simple freehand curves, similar to Nos. 3 to 7, Plate 30.

Colour.—Monochrome in brown.

N.B.—This is a tertiary colour and can be obtained by mixing:

(*a*) Purple and orange, or

(*b*) Red orange with a small quantity of blue.

Lettering.—Practise alphabet; give attention to square, round, and narrow letters. Letter a four-short-line verse, using ruled paper. (Plate 55.)

DECEMBER

Pencil.—Drill in drawing the arc in vertical and horizontal position—banana; anchor; small hook; screw eye.

Nature.—Holly leaf and berries.

Design.—A 5-inch square with diagonal lines similar to Nos. 3, 4, and 6, Plate 29.

Colour.—Complementary colours, red and green.

Lettering.—Combine lettering with drawing or design in simple Christmas card.

JANUARY

Pencil.—Drill in drawing arc in oblique positions—kite; St. Andrew's Cross on shield involving straight and curved lines.

Vocabulary of terms to be understood: Oblique, square, oblong, semi-circle, oval.

Nature.—Banana; laurel leaf.

Design.—A checker pattern—the checks may be square or oblong, see Nos. 1, 4, 5, Plate 32.

Colour.—Two secondary colours, purple and orange.

Lettering.—Practise strokes for verticalism, horizontalism, and slant, using ruled foolscap. Review straight-line letters for proportion.

FEBRUARY

Pencil.—Drill in correct method of drawing vertical, horizontal, and oblique lines. Review forms based on these lines, such as: pennant; slate; envelope, etc.

Nature.—Crocus; snowdrop.

Design.—Draw a rectangle 5 inches by 6 inches, with a diamond superimposed.

Colour.—Complementary colours, yellow and purple.

Lettering.—Practise circles, keeping them round and of one size. Practise letters based on the circle. Letter a simple and short piece of prose—keep good margins on paper.

MARCH

Pencil.—Drill in correct method of drawing the arc in various positions—pumpkin; Chinese lantern.

Nature.—Catkins; tulip.

Design.—A triangle with base 5 inches and altitude 5 inches. Find the centres of the sides without measuring, and join, forming a second triangle.

Colour.—Two secondary colours, green and orange.

Lettering.—Review alphabet; give attention to proportion. Letter a short verse, ruling lines lightly, on drawing paper. Practise numerals.

APRIL

Pencil.—Round hand mirror; dumb-bell; golf-stick. Any farm implement such as sickle, fork.

Nature.—Twigs and buds; narcissus.

Design.—Rule a $2\frac{1}{2}$-inch border and decorate with simple free-hand curves, similar to Nos. 11 and 12, Plate 30.

Colour.—Monochrome in greyed green.

N.B.—Green is greyed by adding a small quantity of red.

Lettering.—Letter an inscription for any school project, giving attention to margins.

MAY

Pencil.—Cricket bat; hockey-stick; slate placed obliquely; lemon and orange.

Nature.—Violet; ivy.

Design.—Draw a 5-inch square and decorate with simple curves similar to Nos. 1 to 4, Plate 31.

Colour.—Two secondary colours and white: green, purple, and white.

Lettering.—Review alphabet. See that names and titles are lettered on all drawings.

JUNE

Pencil.—A tricolour flag placed obliquely; wooden spoon hung vertically. Review correct method of drawing the arc.

Terms to be understood: Angle, triangle, cone, arc, circumference.

Nature.—June flowers.

Design.—Draw a triangle with base 5 inches and altitude 5 inches. Decorate with curves as in No. 9, Plate 31.

Colour.—A primary colour and grey.

N.B.—Grey can be obtained by mixing a bluish purple and adding a very small quantity of yellow.

GRADE IV

SEPTEMBER

Pencil.—Review method of drawing straight lines and arc. Practice in divisioning of lines: fan; magnet; brass hook.

Nature.—Sallal; lilac; autumn flowers.

Design.—A ruled border, measuring in inches, halves, and quarters as in Nos. 12 to 16, Plate 28.

Colour.—Two tones of a primary colour with black.

N.B.—Black can be obtained by mixing a strong blue with a small quantity of red and yellow.

OCTOBER

Pencil.—Indian club; Chinese lantern; football, showing seams.

Nature.—Maple leaf and seed; autumn flowers.

Design.—Draw a 5-inch square or a rectangle 5 inches by 6 inches; decorate with straight lines as in Nos. 4 to 8, Plate 29.

Colour.—Complementary colours: red and two tones of green.

Lettering.—Practice in vertical, horizontal, and oblique strokes in preparation for straight-line letters. Letter names, titles, and numerals. (Plate 55.)

NOVEMBER

Pencil.—Garden spade; palm leaf; fan; pocket knife with blades open.

Nature.—Pumpkin; beet; ivy.

Design.—A ruled border decorated with freehand curves, suggesting leaves, similar to Nos. 11 to 17, Plate 30.

Colour.—Greyed complementary colours. (See Colour Notes.)

Lettering.—Practice in circles in preparation for round letters. Alphabet. Letter simple verse.

DECEMBER

Pencil.—Oval mirror; T-square placed obliquely.

Nature.—Holly and berries.

Design.—Draw a 5-inch square and decorate with freehand curves as in Nos. 5, 6, 8, and 10, Plate 31.

Colour.—Complementary colours and white: red, green, and white.

JANUARY

Pencil.—St. Andrew's Cross on shield; pair of scissors.

Vocabulary of terms to be understood: Square, rectangle or oblong; sphere, circle, oval, cone, angle, triangle, semi-circle, circumference, arc.

Nature.—Any evergreen leaf.

Design.—A ruler border as in Nos. 16 and 20, Plate 28.

Colour.—Any two secondary colours with black.

Lettering.—Review alphabet. Letter piece of prose. Practise difficult letters, such as B, R, S, M, W, X, Y, Z. (Plate 55.)

FEBRUARY

Pencil.—Kalsomine brush ; axe ; elliptical table mat.

Nature.—Crocus ; snowdrop or any available nature form.

Design.—Draw an oblong 5 inches by 6 inches ; decorate with curves in a similar manner to the squares shown on Plate 31.

Colour.—Complementary colours and black.

MARCH

Pencil.—Cross of St. Patrick on shield ; picture frame placed obliquely ; padlock.

Nature.—Early spring flowers ; twigs and buds.

Design.—Draw a triangle any suitable size and decorate with freehand curves, as in Plate 31.

Colour.—Two tones of green with orange.

Lettering.—Practise lettering names, titles, inscriptions, and numerals.

APRIL

Pencil.—Cross of St. George ; hand mirror ; trowel.

Nature.—Fruit blossom ; tulip.

Design.—A diaper pattern based upon the square or oblong, as shown in Nos. 1 and 7, Plate 32.

Colour.—Black and white.

MAY

Pencil.—Union Jack ; school bag ; tennis racquet.

Nature.—Single leaf or simple spray of leaves.

Design.—A 5-inch square decorated with curves. These curves may be suggested by simple leaf forms.

Colour.—Two secondary colours with black.

Lettering.—Letter two four-short-line verses, using 9 inches by 6 inches drawing paper (vertical oblong) : letters to be $\frac{1}{4}$ inch in height with $\frac{1}{2}$-inch space between lines of lettering. (Plate 57.)

JUNE

Pencil.—Horseshoe ; straw hat.

Nature.—June flowers. Review terms used in drawing and design.

Design.—Draw a border or a diaper and decorate with curves, as in Plates 30 and 32.

Colour.—Split complementary harmony: red with blue green and yellow green. (See Colour Chart.)

GRADE V

SEPTEMBER

Pencil.—Drill in correct method of drawing straight and curved lines. Test in sense of vertical and horizontal. Axe; garden-spade.

Nature.—Seasonable flower; leaf; maple seed.

Design.—A straight-line border worked out with ruler and set-squares. (See Plate 28.)

Colour.—Monochrome in green.

Lettering.—Review capital letters: practise various strokes. Letter a complete alphabet.

OCTOBER

Pencil.—Lesson on cylinder, below eye-level: cylinder; round cake tin; tumbler. Some preliminary practice is needed in drawing a hoop or hoops suspended at various levels until the pupils can judge fairly well the ellipses required to represent circles.

Nature.—Sallal; maple; ivy.

Design.—A border similar to Nos. 5 to 8, Plate 30, using ruler, set-squares, and compass.

Colour.—Monochrome in greyed red or brown.

NOVEMBER

Pencil.—Large bowl; crock; filler; straw hat, below eye-level.

Nature.—Turnip; carrot; pumpkin.

Design.—A border to be spaced out with ruler and set-square and decorated freehand with straight-line motifs. Pupils may copy a motif from those suggested in Plates 34 36, 42. Simple repetition only.

Colour. — Monochrome in a secondary colour, leaving white outline.

Lettering.—Practise circle form and letters based on it, such as O, Q, C, G, D. Practise M, W, X, Y, Z. Letter a four-line verse.

DECEMBER

Pencil.—Demonstration of foreshortening of circle with hoops above eye-level; janitor's round pail; Chinese lantern; gallon jar, without handle—above eye-level.

Nature.—Holly and berries.

Design.—Draw a rectangle 5 inches by 6 inches and decorate as in Nos. 7 and 8, Plate 29.

Colour.—Complementary colours with black.

JANUARY

Pencil.—Mallet; ink jar; zinc pail, on eye-level; St. Andrew's Cross on shield.

Nature.—Snowdrop; leaves.

Design.—Draw a border and decorate with curved-line motifs as shown in Plates 34, 36, 42.

Colour.—Complementary colours with white.

Lettering.—Introduce small-letter alphabet; show that all letters are based on straight stroke and letter O. Letter names and titles, using capital and small letters.

FEBRUARY

Pencil.—Review cylinder above, below, and on the eye-level.

Nature.—Crocus; leaf; fruit.

Design.—Draw an equilateral triangle with compass and ruler and decorate as in Nos. 10 to 13, Plate 31.

Colour.—Greyed red and greyed blue.

MARCH

Pencil.—Flower-pot; cup, below eye-level; simple vase, base on eye-level.

Nature.—Tulip; catkins; leaves.

Design.—A square, drawn with ruler and set-square. Decorate freehand with straight-line motifs as shown on Plates 34 and 37.

Colour.—A split complementary harmony: yellow with red purple and blue purple.

Lettering.—Letter a four-line verse in capital and small letters; observe distance between lines of lettering. (Plate 57.)

APRIL

Pencil.—Cylinder, obliquely; simple vase; vinegar bottle (vertical position), suspended above eye-level.

Nature.—Chestnut buds; violets; leaf and twig.

Design.—A square decorated with curved-line motifs as in Plates 34 and 37. Simple repetition only.

Colour.—Analogous harmony in greens.

MAY

Pencil.—Lantern, above eye-level; large basin, below eye-level; Union Jack.

Nature.—Dandelion; pansy.

Design.—A border, using a leaf form as the motif. Simple repetition, as Nos. 1 and 2, Plate 36. (See also Plates 47 to 52.)

Colour.—Any secondary or primary colour with a grey background.

Lettering.—Complete alphabet of capitals and small letters. Letter a piece of prose or inscription in capital letters only.

JUNE

Pencil.—Mallet suspended; barrel with few hoops around, base on eye-level; simple vase, below eye-level.

Nature.—Ivy; buttercup.

Design.—Draw any form of panel and decorate with motif suggested by a leaf or flower. (See Plates 47 to 52.)

Colour.—Greyed blue and orange.

GRADE VI

SEPTEMBER

Pencil.—Review cylinder above, below, and on eye-level. Drawing of hoops suspended at various levels. Lesson in light and shade on cylinder. Correct method of shading to be taught and difference in tones to be looked for. (See Light and Shade.)

Nature.—Bulrush ; sweet-pea ; maple seed.

Design.—Draw a 5-inch equilateral triangle and decorate as in Plate 29. Work with compass and set-squares.

Colour.—Black, white, and grey.

Notes on Work.—It is most important in finishing a drawing in light and shade that the pupils realize the differences of tone on the object. As a rule, the gradation is from light to shade and from shade to reflected light. The "shadow" is that tone which is cast by the object on the side away from the source of light.

Also, the planes of an object rendered in full light and shade should not be bounded by lines. The outlines should merge into the tones of the object.

Lettering.—Practise vertical, horizontal, and oblique strokes. Practise circle form. Complete alphabet of capital letters, giving attention to round, square, and narrow letters. Letter names, titles, etc.

OCTOBER

Pencil.—Crock, above eye-level ; straw hat (horizontal position) ; ink bottle, below eye-level (to be finished in light and shade) ; vase.

Nature.—Leaf of sallal, maple, laurel.

Design.—Draw a diamond or rhombus with diagonals, 5 inches by 6½ inches. Decorate as shown on Plate 29. Use ruler, set-squares, and compass.

Colour.—Monochrome in any greyed colour.

NOVEMBER

Pencil.—Cylinder, oblique position ; bottle in oblique position ; basin in oblique position.

Nature.—Lilac; ivy.

Design.—Develop symmetrical motif with straight lines. Try for originality. (Plate 34.) Arrange these in a border as shown in Nos. 1 to 3, Plate 36.

Colour.—A greyed complementary harmony.

Lettering.—Practise small-letter alphabet. Give attention to spacing of letters, words, and lines. (Plate 56.) Letter a piece of prose in small letters $\frac{1}{4}$ inch in height.

DECEMBER

Pencil.—Flower-pot, upside down and below eye-level; simple vase on eye-level (shade); water-can, without side handle.

Nature.—Holly and berries.

Design.—Draw an equilateral triangle and decorate with straight-line motifs, as shown in Plate 40.

Colour.—A complementary harmony with black or white.

JANUARY

Pencil.—Barrel, below eye-level; ginger-beer bottle suspended obliquely. Finish in light and shade.

Nature.—Snowdrop; privet twig.

Design.—Decorate a border with symmetrical motifs composed of curved lines, as shown in Nos. 1 to 3, Plate 36.

Colour.—Analogous harmony in purples.

Lettering.—Letter an advertisement or school announcement in capital letters only, on paper 6 inches by 9 inches (horizontal oblong); lines of letters to be varied in height according to importance, but not less than $\frac{3}{8}$ inch. Observe good marginal space. (Plate 58.)

FEBRUARY

Pencil.—Review cylinder above, below, and on eye-level. Review on correct method of shading. Give attention to differences of tone.

Nature.—Crocus; leaf.

Design.—Plan with set-squares and ruler a diaper pattern, similar to Nos. 8 to 12, Plate 32.

Colour.—Analogous harmony in blues.

MARCH

Pencil.—Thread-spool; zinc pail, below eye-level; lantern, above eye-level.

Nature.—Tulip; catkins.

Design.—Decorate a square with symmetrical motifs composed of curved lines, as shown in Nos. 2 and 3, Plate 37.

Colour.—A split complementary harmony.

Lettering.—Complete two alphabets, one in capitals and the other in small letters. Letter a verse, using pen over pencil; use ball-pointed pen, thus ensuring a more even thickness of line.

APRIL

Pencil.—Tub, tipped obliquely; simple vase, base on eye-level; cup and saucer, below eye-level.

Nature.—Buds; violet.

Design.—Decorate a border with conventional leaf, using the same arrangements as in previous exercises. (See Plates 47 to 52.)

Colour.—Green and purple with black or white.

MAY

Pencil.—Measure, with handle; pot, with handle. Special attention to be given to position and length of handle. (Plate 15.)

Nature.—Trilium; pigeon berry.

Design.—Decorate an equilateral triangle with any nature form as shown on Plates 47 to 52. Use the same arrangements as in previous exercises.

Colour.—Any colour on grey or black ground.

JUNE

Pencil.—Watering-pan; cone, below eye-level; ink-can (conical shape), below eye-level.

Nature.—Ivy; pansy.

Design.—Decorate a square or triangle with a conventional butterfly, as in Nos. 1 and 2, Plate 48.

Colour.—Analogous harmony in orange, red orange, yellow orange, and black.

GRADE VII

SEPTEMBER

Pencil.—Review cylinder above, below, and on eye-level; also review the cone.

Nature.—Sweet-pea.

Design.—Construct a hexagon in a $5\frac{1}{2}$-inch circle and decorate with straight lines, as shown in Plate 29. Use ruler, set-squares, and compass.

Colour.—Monochrome in olive green or russet brown.

Lettering.—Practise vertical, horizontal, and oblique strokes, also circle forms. Letter alphabet capitals. Give attention to spacing of letters, words, and lines. Letter a verse from "O! Canada."

OCTOBER

Pencil.—Barrel, above eye-level. Lesson on cube, below eye-level.

Nature.—Maple leaf and seed.

Design.—Plan a diaper with set-squares and ruler. See Nos. 7 to 13, Plate 32.

Colour.—Monochrome in greyed blue.

NOVEMBER

Pencil.—Cube, above eye-level (suspended); large square packet of paper, below eye-level. In drawing the cube fix height and width first; draw verticals, and relate all other lines to the verticals by watching for area of the angles formed by the inclination of the lines. Watch also for the shapes of the areas or planes when seen in perspective.

Nature.—Spray of simple leaves.

Design.—Develop symmetrical motifs with straight lines, trying for originality. Arrange these in borders as in Nos. 5 or 6, Plate 36.

Colour.—Analogous harmony in blues or greens.

Lettering.—Letter small-letter alphabets. Give attention to good spacing and margins. Letter a piece of prose within horizontal oblong 9 inches by 12 inches. Keep letters $\frac{1}{4}$ inch to $\frac{3}{8}$ inch in height; use small letters. Finish in pen over pencil.

DECEMBER

Pencil.—Cube, base on eye-level; large box, above eye-level.

Nature.—Spray of sallal.

Design.—Develop symmetrical motifs with curved lines. Arrange in border, as shown in Nos. 7 and 8, Plate 36.

Colour.—A split complementary harmony.

JANUARY

Pencil.—Strawberry basket; large book, below eye-level.

Nature.—Holly and berries.

Design.—Make a drawing of a flower from Example 3 of Historic Ornament, Plates 44 and 45. Make a drawing of a similar nature from one of your own nature drawings. (Plate 51.)

Colour.—Black and white.

Lettering.—Letter an advertisement or school announcement, any shape or size pupils may desire. See that margins are generous. (Plate 58.)

FEBRUARY

Pencil.—Cylindrical form; cubical form; cone—all below eye-level.

Nature.—Fruit; crocus.

Design.—Use drawing of previous month to decorate a border, using plans similar to Nos. 5 to 8, Plates 36 and 52.

Colour.—Secondary colours with black or white.

MARCH

Pencil.—Cylinder, lying horizontally; square prism, vertical, and below eye-level; large round basin, placed obliquely.

Nature.—Tulips.

Design.—Develop symmetrical motifs with curved lines. Decorate a 5-inch square as shown in Nos. 2 and 3, Plate 41.

Colour.—Split complementary colours, with black or white.

Lettering.—Combine lettering, drawing, and design in Easter card. Practise letter forms, taking care that all letters are properly proportioned.

APRIL

Pencil.—Hexagonal prism, below eye-level. (Light and Shade lesson.) Square biscuit-box; jam-jar, below eye-level. When shading hexagonal prism, see that the different planes are brought out in tones of light and shade and not by heavy boundary lines.

Nature.—Chestnut buds.

Design.—Decorate a square or circle with a conventional leaf or flower. Arrange as shown in Plates 37, 40, and 41.

Colour.—Greyed primary colours.

MAY

Pencil.—Barrel in horizontal position; large book standing vertical on end, and a smaller book reclining against it. Watch angle of inclination in the small book. Relate the inclined lines to the verticals.

Nature.—Ivy leaf; simple spray of leaves.

Design.—Study conventional drawings of insects and repeat one in a border, as shown in Nos. 5, 6, and 7, Plate 36.

Colour.—Analogous harmony, green to blue.

Lettering.—Letter two alphabets, one in capitals and the other in small letters. Keep small letters $\frac{3}{16}$ inch in height; use ruled foolscap, adding extra ruled lines where necessary. Keep ruled lines light.

JUNE

Pencil.—Basket with handle; cylindrical pan with handle. Pay special attention to handles. (See Plate 15.)

Nature.—Butterflies and insects.

Design.—Draw a Greek border from Plate 44.

Colour.—Greyed red and black. (Greek pottery colours.)

GRADE VIII

SEPTEMBER

Pencil.—Review cube and cylinder, above and below eye-level.

Nature.—Sweet-pea; maple leaf and seed.

Design.—Plan a diaper pattern as in Nos. 11 and 14, Plate 32.

Colour.—Monochrome in greyed primary colour with black.

Lettering.—Practise alphabet, capitals and small letters, in $\frac{1}{2}$-inch, $\frac{3}{8}$-inch, and $\frac{1}{4}$-inch sizes, using ruled foolscap or ordinary drawing paper with lines ruled lightly.

OCTOBER

Pencil.—Square prism and cone, below eye-level; large box, above eye-level. Prism should be drawn in first and relative position of cone to prism carefully found. Watch the shapes of the areas formed by the crossing of the one solid in front of the other.

Nature.—Thistle; spray of simple autumn leaves.

Design.—Draw a border from Historic Ornament, Egyptian or Greek. (Plate 44.)

Colour.—Black and white.

NOVEMBER

Pencil.—Book, below eye-level; watering-can or sprinkler, base of can to be on eye-level.

Nature.—Half apple and orange, grouped.

Design.—Border decorated with conventional leaves or seeds. Arrange as shown in Nos. 1 to 8, Plate 36.

Colour.—Analogous harmony in browns or reds.

Lettering.—Letter name, grade, and school in address form, in small letters on horizontal oblong 6 inches by 9 inches. Use suitably sized letters.

DECEMBER

Pencil.—Box with lid open at less than 90 degrees; thick book lying on horizontal plane with thin book standing vertically on top. It is very often a good plan to draw the vertical book first; one can then relate lines of the horizontal book to those of the vertical.

Nature.—Spray of any evergreen leaves of good shape.

Design.—Decorate an equilateral triangle with symmetrical motifs, using straight and curved lines. See No. 6, Plate 41.

Colour.—A split complementary harmony.

JANUARY

Pencil.—Barrel, above eye-level; match-box, below eye-level; bottle, suspended obliquely.

Nature.—Holly and berries.

Design.—Construct a hexagon or circle and decorate on the same plan as the previous exercise. Note adaptation of form to new space.

Colour.—A split complementary harmony.

Lettering.—Letter an advertisement on vertical oblong 12 inches by 9 inches, using capital letters only. Decorate with simple border across top and bottom. Allow adequate margins. (Plate 58.)

FEBRUARY

Pencil.—Review cube, cylinder, and prism, above and below eye-level. Prism to be finished in light and shade.

Nature.—Crocus; leaf.

Design.—Make carefully constructed drawings of a Persian flower or some Gothic foliage. (Plates 44 and 45.) Use these in a border or panel.

Colour.—Persian: Analogous scheme in blues and greens. *Gothic:* Monochrome in brown.

MARCH

Pencil.—Groups; cigar box and tumbler; ink bottle and chalk box (to be finished in light and shade).

Nature.—Ivy; tulip.

Design.—Construct a panel border as shown in No. 9, Plate 36. Note that the motif conforms to the shape of the panel.

Colour.—Any colour scheme previously used, with white or black ground.

Lettering.—Practise alphabets, capitals, and small letters, giving attention to well-proportioned letters. Letter a verse or school announcement, using capitals and small letters.

APRIL

Pencil.—Vase standing on top of book placed below eye-level; whole orange and half apple. To be finished in light and shade.

Nature.—Twig and buds ; dogwood.

Design.—Decorate a border or panel with conventional renderings of some spring flower. (See Plates 47 to 52.)

Colour.—Tints of any colours with white.

MAY

Pencil.—Packing-box with lettering on side (special attention to perspective lettering) ; place pyramid on top of box. A cube form against which a basin is lying obliquely. Finish in light and shade.

Nature.—Pigeon berry.

Design.—Adapt an Egyptian lotus flower or some other Historic Motif (Plates 44 and 45) to the decoration of a panel or border.

Colour.—Egyptian : Blue, green, orange, greyed red, and black. *Greek :* Black, greyed red, purple, and white.

Lettering.—Letter a selected piece of prose in capitals and small letters. Use ball-pointed pen and letter either direct or over pencil. Decorate initial letter. Be generous with margins, size 9 inches by 12 inches. (Plate 58.)

JUNE

Pencil.—Butterflies ; a group of two bricks, one lying horizontal, the other standing vertically on top of horizontal one ; gallon jar, with handle showing.

Nature.—Spray of leaves and berries ; butterfly in colour.

Design.—Decorate a panel with some conventional insect form. (Plate 48.)

Colour.—Choose colours from some insect.

III. HIGH SCHOOL DRAWING AND DESIGN

The High School Course in Drawing and Design should amplify and broaden the scope of the work already taught in the Elementary School grades. This can be achieved by making it clear to High School students that the principles of Drawing, Design, and Colour have a very real effect on their subsequent professional, business, or home life if the Drawing and Design is related to these activities.

Draughtsmanship, problems of Space Filling, Appreciation of Good Line and Mass, and a knowledge of the laws governing Design and Colour are all qualities that will serve every man and woman at some time or another, and a little thought along these lines on the part of student and teacher will verify such a statement, for what workman is there who is not continually faced with problems of space division, of good line, mass, and colour ? What professional man who, at some time or another, does not wish fervently for the ability to express himself other than with words, however simple that graphic expression may be ? And what housewife who is not continually faced with problems of colour in the decoration of house and person ? Drawing was the first means of communicating thought—it remains the clearest to-day.

As an aid to the appreciation of what is good in form and colour samples of good historic and modern design might be collected and be on exhibition during the

drawing lesson. Much suggestive material along this line may be found in the advertisements and other matter to be found within the covers of any good modern magazine. Selections of the best work produced by students of previous years may also be mounted and used as suggestive data when similar problems are being tackled. In this way students are given a start in the thoughtful working out of their problems.

Wherever possible, students should make their designs for the decoration of a definite material such as cardboard, wood, fabrics, clay, etc., and actually apply it to the chosen material. This application of the design to the material is difficult where large classes have to be taught, and demands certain equipment and storage space. Ingenious teachers, however, can generally find a way, and paper or light cardboard projects, such as posters, portfolios, lampshade (parchment), calendars, etc., may be successfully carried out if the necessary supplies are obtainable. Students should also be encouraged to apply their designs in home crafts, such as embroidery, stencilling, lettering, and woodwork.

Natural forms, plant form, and manufactured objects which may hitherto have been drawn imitatively, may now be conventionalized and used as motifs for the enrichment of geometric areas such as the pentagon, hexagon, ellipse, etc., the geometric construction of which may be taught as the need arises. Many of these forms, either in plan or elevation, are essentially geometric in character, and can be readily adapted to fill geometric spaces. In this manner draughtsmanship, geometry, colour harmony, and beauty of line and mass are shown to be interdependable in good design.

The use of object drawing apart from its general

educational qualities can also be shown in its relation to trade and business by the designing of posters, catalogue covers, etc., making use of the objects or group of objects already drawn as the central or leading motif in the design. Magazine advertisements and poster hoardings offer many suggestions along this line.

A good starting-point for the year's work is the planning of a design to fill some regular shape such as a square, diamond, circle, or band. Let the design be for the decoration of some definite material such as wood, cardboard, china, a tile, or linoleum. Supposing the material to be wood, and a square chosen as the shape to be decorated : such might well represent the top of an inlaid box or tray. The disposition of the lines, masses, tones, and colours used would, of course, require to conform to the limitation of the material and the tools to be employed in the actual application of the design. This should be understood and thoroughly explained by the teacher, since all good decoration is influenced by the shape and surface of the object it is designed to beautify. (See Plates 60, 62.) Even though the design may not be actually applied to the object, the practice of working within limitations rigidly set by material and tools used will have great educational value. Similarly, in working a design for the enrichment of china, a tile, or a unit in linoleum design, the material should influence the design.

The analogy between a good design and a story, a play, or a piece of music, might well be shown. In each there is a leading idea, character, motif, or theme, supported and contrasted by minor ones, changes of scene, colour, rhythm, or key. These supports and contrasts, however variable they may be, are all subservient

to the leading idea or motif, and it is this unity in variety which distinguishes good design from bad. Deliberate order and arrangement is always to be preferred to a mere haphazard bringing together of unrelated parts or units. This applies to colour as well as form.

Having chosen a geometric area or space to be decorated, proceed to divide into regular subdivisions by bisectors, diagonals, or any other regular divisors. On or within these skeleton lines place your principal decorative unit or parts of such unit, seeking at the same time for balance and pleasing variety of form. This principal unit is generally placed at or near the centre of the area. If the background spaces appear empty or the unit itself poor, enrich it with minor units, which, though perhaps contrasting in shape and size, will yet connect and add interest to the leading unit or motif, and at the same time be in harmony with framework and border.

Observe the principles of repetition, radiation, and contrast for the lines, units, spaces, and colours, and aim at pleasing relations and divisions of line, space, tone, and colour. Be constantly on the look-out for good shapes that may suggest themselves as the design progresses. A good designer is an opportunist, and is alive to the good shapes that may arise as the pencil travels to and fro across the design. Avoid " busyness " in a design, remembering that beauty is found in quiet places, and that a green lawn is a pleasing contrast to a flowered bed. (See Plate 62.)

Similar geometric areas may also be divided into irregular spaces less conventional in form ; but this offers greater difficulty in the getting of balance in line, space, tone, and colour. (See Plates 60, 62.)

Borders, belts, and band patterns are built up on the same principles. In such designs rhythm and movement is often gained by the carrying on of a unit, motive, or idea from one geometric division to another, thus introducing the overlapping of lines and spaces. (See Plate 63.)

Care should be taken that the unit in its form does not conflict with the geometric boundaries of the area. Violent contrasts of line or sudden changes opposed to the boundaries make for instability and lack of repose in the design. As a general rule, in any given space or area, upright or vertical lines give stability, horizontal lines repose, curved lines movement, growth, and rhythm.

COLOUR

The importance of good colour harmony should be emphasized throughout the course, since the ability to choose colours that harmonize is one that is being constantly called for from every man or woman, whether in relation to business, personal adornment, or home decoration.

Nature herself is a veritable storehouse of harmonies, and one cannot do better than observe her bountiful arrangements and contrasts of tone and colour for the purpose of applying them to designs of all sorts.

A colour chart should be drawn and carefully painted early in the year, and used in illustration of such simple harmonies as monochrome or one-colour harmonies, analogous or related harmonies, complementary and split-complementary harmonies. These various harmonies should be practised and made obvious by their

utilization in the colouring of a series of very simple design problems, unless previously covered in Elementary School grades, in which case greater tonal differences of the same harmonies might well be sought. (See Plates 38, 39, 43, 46, 61.)

The same rules for the separation of different tones and colours by various edgings, as are outlined in the Elementary School Design Course on page 77, obtain here also. Generally speaking, when dark tone is alongside dark tone the separating edging or line is light in colour, and when light tone is alongside light tone the separating edging or line is dark. This separating line of contrasting tone or colour is not so necessary when a light space is alongside a dark, because such a contrast is generally sufficient to define the form. Nevertheless a separating line is often used, particularly if there is any suggestion of the two colours appearing to fuse, and so lose the form.

In good design work variety of tone is as important as variety of colour, if not more so, and the spaces given to the darks, half-tones, and light tones should be carefully considered for good balance. Bright colours or strong tones generally occupy the smaller areas, and are balanced and contrasted by quiet greyed colours, or lighter tones in the larger areas. No definite rules, however, can be laid down in this respect so long as the final effect is one of repose.

When strong contrasts are required bright colours with few tones should be used, and quiet or greyed colours in a greater number of tones when a delicate contrast is desired. The general use of black and white in all harmonies helps to stimulate the colour values, and often lends strength to an otherwise weak colour scheme.

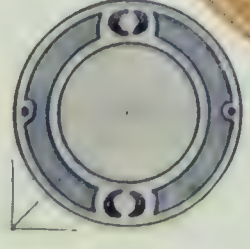
ILLUSTRATIONS TO HIGH SCHOOL DRAWING AND DESIGN

Space Division

Box Lid

Box Lid

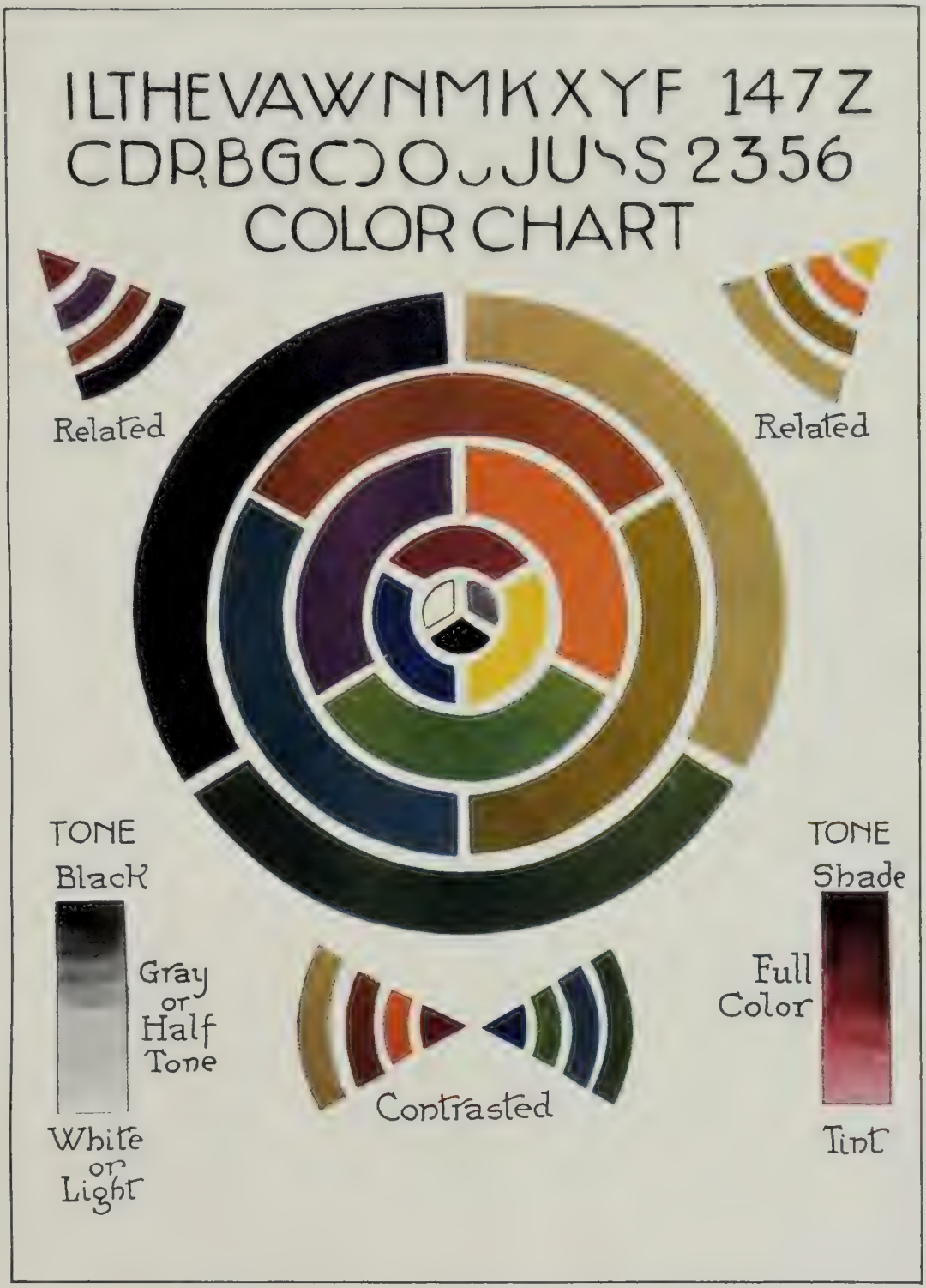
Platter



Plates

or

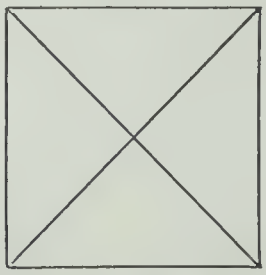
Saucers



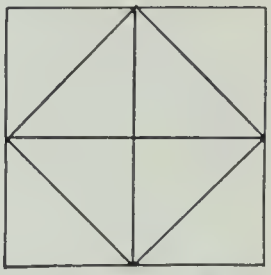
A Chart of Color Tones and Color Harmonies.

Space Division.

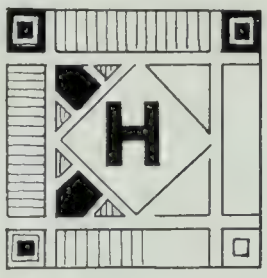
Bisectors

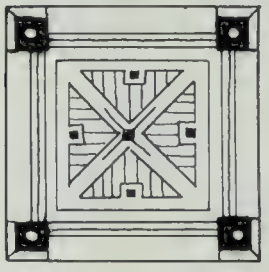


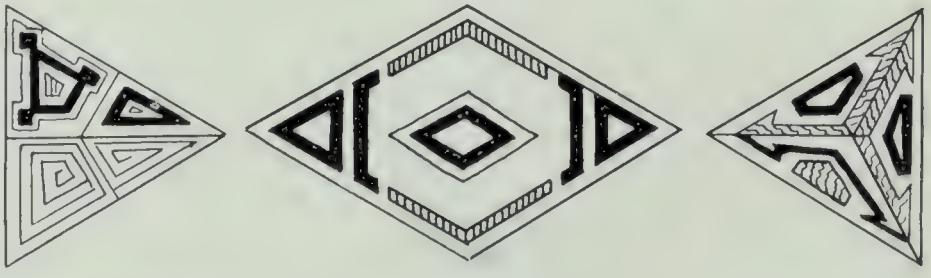
Diagonals



Angles 45°





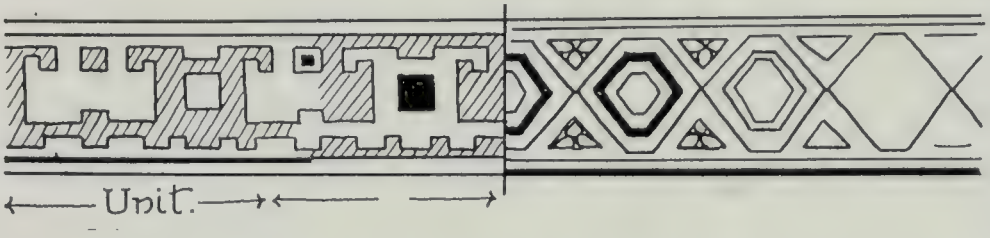


Bisectors

Diagonals

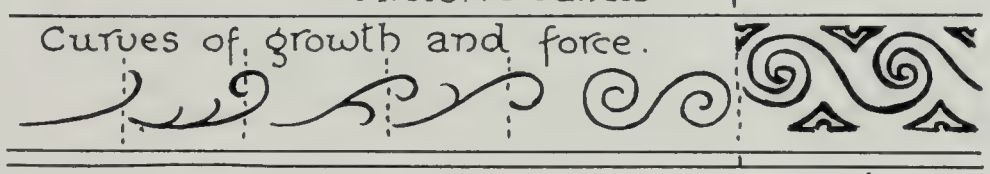
Angles 60°

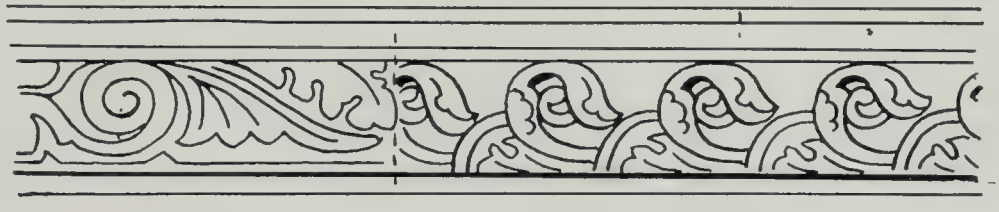
Space Division.

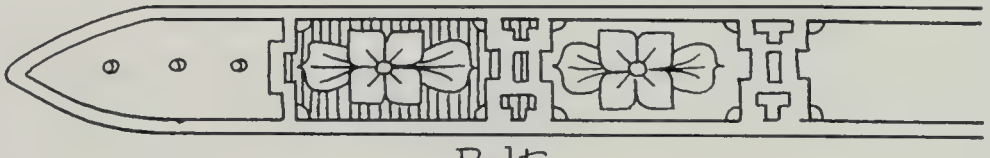


Historic Bands

Curves of growth and force.







Belt.

HORIZONTAL BANDS.

MONOGRAMS

ONE COLOR

RELATED

CONTRASTED

For Construction of Ellipse see Plate. 66

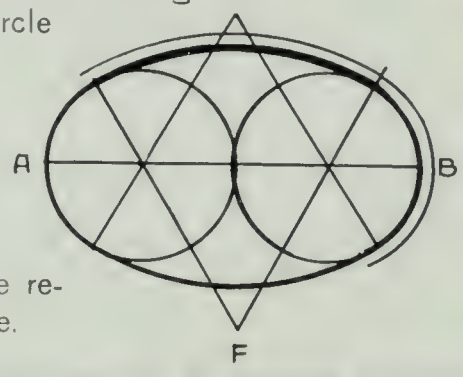
NU-COLOR
WALL PAINT
NU-COLOR
FOR
WALL
AND
CEILING

Geometrical Constructions

Plate 60 contains revision work on the division of squares, triangles, and circles.
Plate 61. Hexagon by use of radius, or trisection of circle.
Plate 62. Same as Plate 60.
Plate 63. Parallels and subdivision of horizontal bands.

CONSTRUCTION OF ELLIPSE.

METHOD. Bisect A B the long diameter and describe two circles touching one another. Starting at A and B divide each circle into 6 parts by using the radius. Draw st. lines from the outer divisions through the centres of the circles so as to meet at E F. These points will be the centres for the remaining arcs of the ellipse.



CONSTRUCTION OF PENTAGON IN A GIVEN CIRCLE

Bisect the left half of the horizontal diameter at 2. Name the top of the vertical diameter 3, and with distance 2 3 strike an arc to cut the right half of the horizontal diameter at 4. Then with distance 3 4 strike another arc to cut the circumference at 5. 3 5 is one-fifth of the circumference.

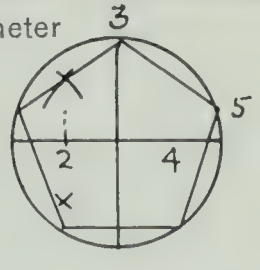
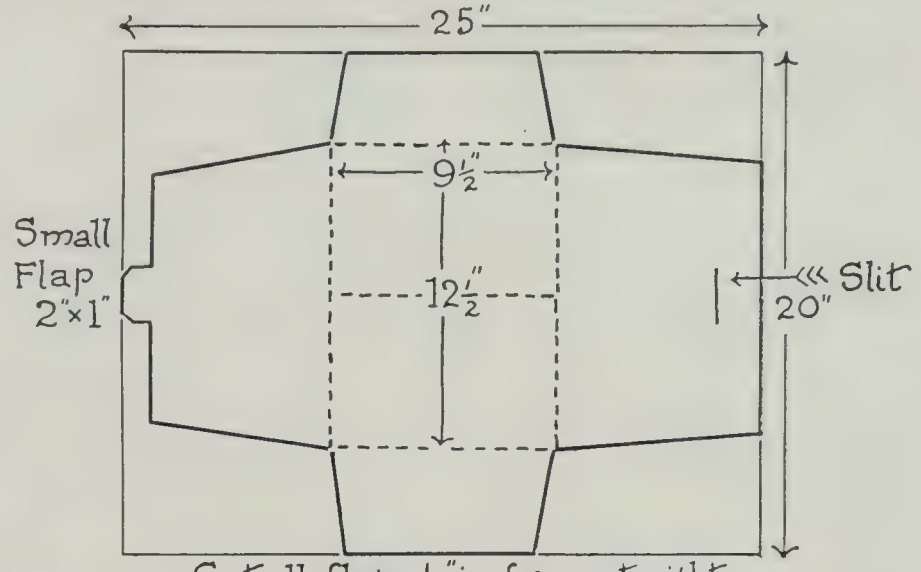
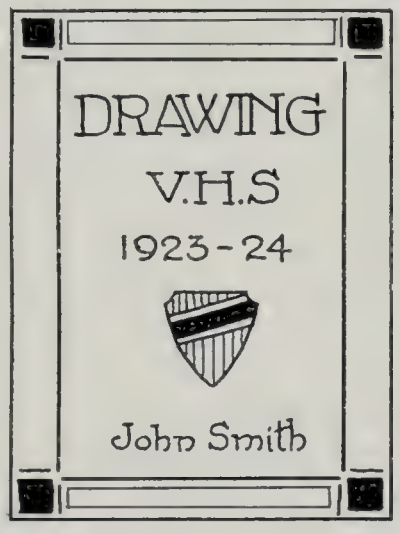


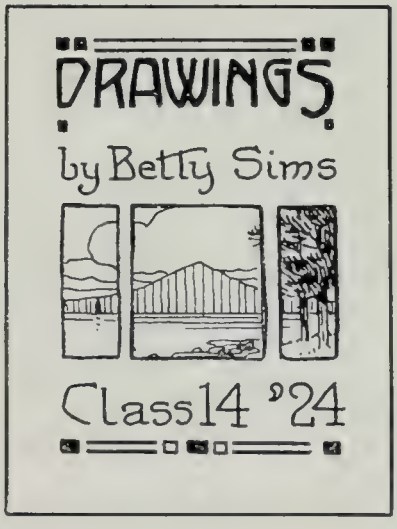
Plate 69. Plans and Elevations, Scale work.

From a sheet of Cover Paper 25"×20" make a Folder. Cut on plain lines, fold on dotted.



Cut all flaps ½" in from straight.





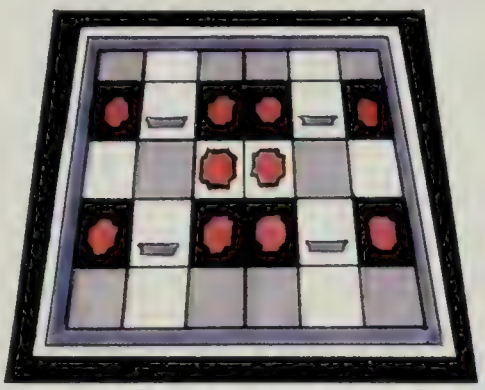
Cover Designs

PLATE 68

Nature Study
DOGWOOD
Colour Chart from the Plant.
Stencil and Embroidery.

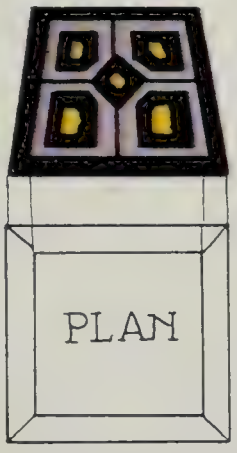
Plans & Elevations

LAMP SHADES

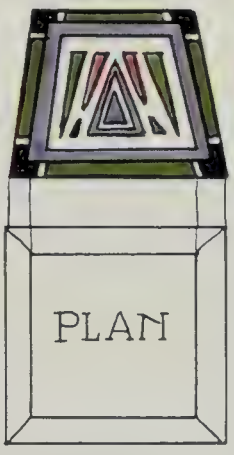


ELEVATION

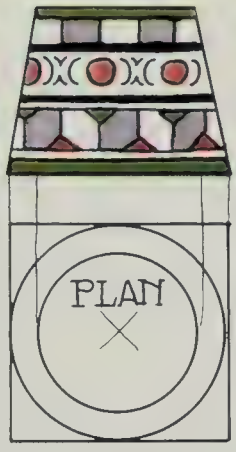
ELEVATION



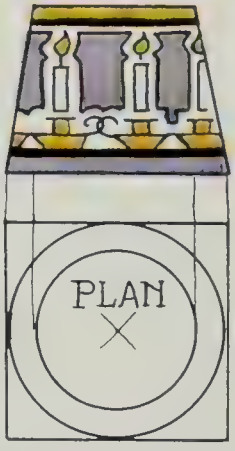
PLAN



PLAN



PLAN

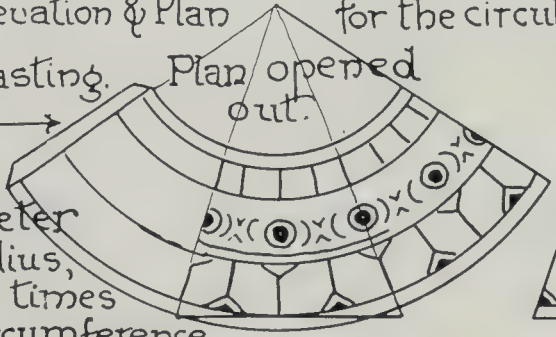


PLAN

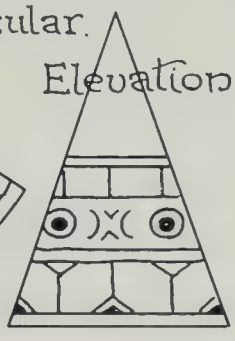
Construction for Square & Circular Shades; a Truncated Cone gives the Elevation & Plan for the circular.

Flap for pasting.

Twice the base diameter for the radius, and three times for the circumference.



Plan opened out.



Elevation

ABCDEFGHIKLM
NOPQRSTVXY

ROMAN LETTERS
BEST TYPES

JUZ

THE BASIS OF OUR
OF ALPHABETS

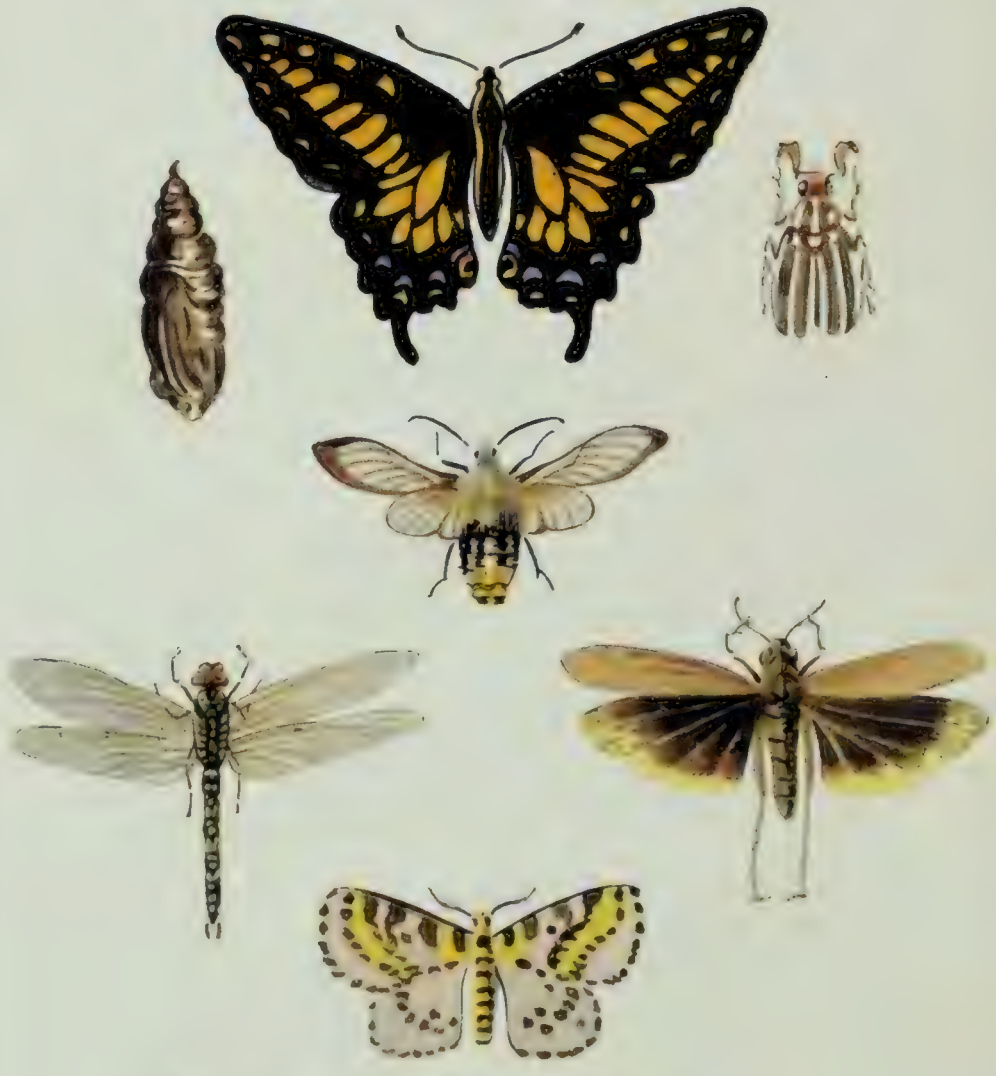
abcdefghijklm
nopqqrstuvw
xyz

GIOVANNI
BATTISTA

1234567890

Commercial Illustration.

BUTTERFLIES & INSECTS



Make studies from Nature like
these and from them develope Conventional
Representations for Design

Nature Study, and Decorative Forms.

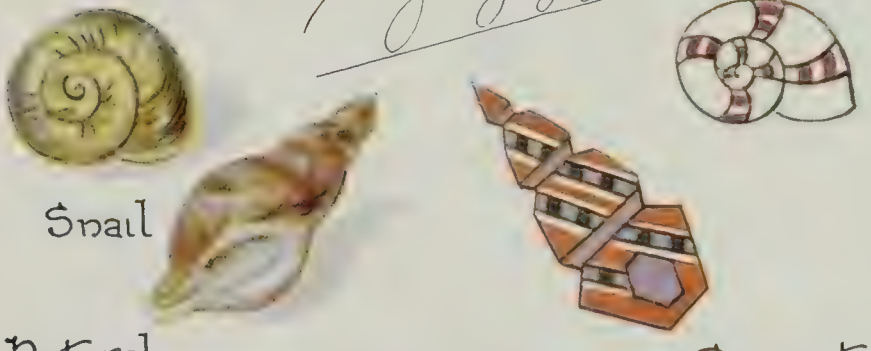
Draw and colour from

Choose typical lines, spots, and bands then balance form & colour.

Limpet

Mussel

Clam

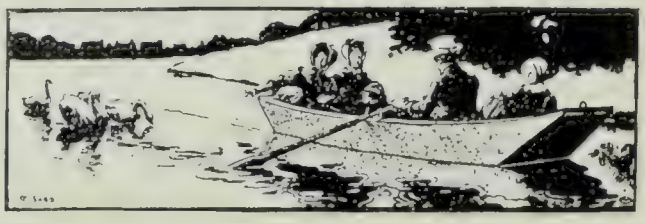


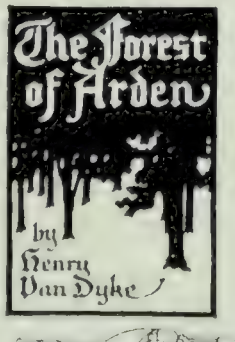
Snail

Natural.

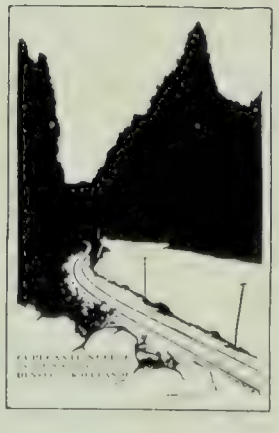
SHELLS

Conventional.





GLASGOW.....
36 TENNANT STREET



Commercial Illustration.

FIRST YEAR HIGH SCHOOL COURSE

SEPTEMBER

Object Drawing.—Single object, treat in pure outline and complete with addition of simple shadows in solid black (no half-tones). (Plate 22.)

Nature Drawing.—Flower, leaf, or spray in accented line. (Plates 12, 24.)

Design.—A simple problem in the filling of a square, using straight and curved line elements. Colour in complementary harmony.

OCTOBER

Object Drawing.—Object or group of objects on greyed paper, treated in simple light and shade or crayon. (Plates 22, 23.)

Nature Drawing.—Leaf or seed vessel, in outline and flat colour tones. (Plate 24.)

Lettering.—Skeleton Roman alphabets, capitals and small letters. (Plates 55, 56, 61.)

NOVEMBER

Design.—Design and fill a square or oblong suitable for an inlaid box lid or tray, linoleum, or tile ; finish in tones of one colour. (Plates 60, 62.)

Geometry.—Revision of bisectors, diagonals, and subdivisions of square and circle. (Plates 60, 62.)

Colour Chart. See Plate 61.

DECEMBER

Nature Drawing.—Holly or mistletoe in outline and flat colour tones. (Plate 24.)

Design.—Christmas card or calendar, using seasonable motifs, giving attention to good spacing and lettering.

JANUARY

Object Drawing.—Group of objects, finish in any one of the methods already covered.

Design.—Monograms of students' initials in square, circle, and ellipse (Plate 64), using monochromatic, analogous, and contrasted harmonies.

Geometry.—Construction of the ellipse. (Plates 64, 66.)

FEBRUARY

Lettering.—Roman alphabet, capitals ; develop from skeleton forms. (Plate 70.)

Design.—Book cover or drawing portfolio, combining lettering and rectangular panel. (Plate 67.)

MARCH

Object Drawing.—Manufactured objects suitable for adaptation to poster design. (Plate 65.)

Design.—Poster, making use of objects just studied, adding suitable lettering. (Plate 65.)

APRIL

Nature Drawing.—Butterflies or insects ; shells or birds. (Plates 72, 73.)

Design.—Design for wastepaper basket or lampshade from truncated pyramid or cone. Plans and elevations. (Plate 69.)

Decorate surfaces with geometric or other suitable designs.

MAY

Object Drawing.—Garden implements or tools in light and shade.

Nature Drawing.—Spring flowers in flat tones of colour with pen or pencil outline. (Plates 24, 68.)

Design and Lettering.—Piece of prose or verse with decorative initial letter or border. Allow good margins.

JUNE

Revision and completion of unfinished work.

SECOND YEAR HIGH SCHOOL COURSE

SEPTEMBER

Object Drawing.—Object or group of objects in accented outline. (Plate 21.)

Nature Drawing.—Autumn leaves or flowers in flat colour tones with pen or pencil outline.

Design.—Design to fill a circle, either geometric or from the nature study. Colour in harmony with the plants studied.

OCTOBER

Object Drawing.—Manufactured forms; in black and white, or crayon in three colours.

Design.—Poster, using above object drawing in combination with lettering.

NOVEMBER

Nature Drawing.—Outline drawings from sallal, dogwood, mountain ash, or any plant; develop units and make charts from the plant of its colours. (Plate 68.)

Design.—Tile or stained-glass panel, using units or material from the plant just studied; colour from the chart.

Lettering.—Verse or prose in ink with decorative border or initial letter. (Plate 58.)

DECEMBER

Nature Drawing.—Ivy; holly; pine cones—in full colour. (Plate 24.)

Design.—Calendar, combining good lettering and ideas connected with "Time" or Christmas.

Lettering.—Revise Roman capitals and small letters. (Plate 70.)

JANUARY

Object Drawing.—Still life; group of bowl and fruit, in crayon on tinted or greyed paper. (Plate 23.)

Design.—All-over pattern suitable for textile or wall paper; a section only of the design need be coloured. Use crayon on manila or tinted paper or water-colour on white paper. (Plate 32.)

Lettering.—Within a square or circle of 4 inches diameter plan a simple object and combine with lettering suitable for a trade-mark. (Plates 71, 64.)

FEBRUARY

Object Drawing.—Figure drawing. Have a student pose before class for fifteen or twenty minutes. Only the blocking in of simple lines, masses, and contrasts of light and shade need be attempted. Use pencil or crayon.

Alternative.—Group of fruit or vegetables in crayon or water-colour.

Design.—Book cover. Title or lettering to be in harmony with ornament used in design. (Plates 71, 74.)

MARCH

Object Drawing.—From a photograph of any building, car, machinery, or object, make a bold pen drawing such as is used in commercial illustration. Current magazines will supply examples of technique. The drawing should be larger than the photograph. (See Plates 71 and 74.)

Design.—Cushion cover or table runner. Plan the former in square or rectangle; the latter as a border. For units, see Plates 68 and 73 on shells and dogwood, or use any plant already studied.

Lettering.—Name of school and city in Roman capitals, well placed on paper in ink.

APRIL

Object Drawing.—Group of objects from Science Room or Manual Training Shop.

Design.—Within a shield or geometric area plan a coat of arms or a floral or industrial emblem of city, municipality, or province. Place a scroll above the design to carry the name or motto.

Nature Drawing.—Devise units from Nature Studies already made, or make new studies from any plants or buds obtainable.

MAY

Object Drawing.—Sporting group, such as tennis racket and balls, hockey-stick, football, etc.

Design.—Use the material studied above for a Sports Catalogue Cover with suitable lettering.

Nature Drawing.—Spring flowers, buds, or blossoms in flat colour tones with pen or pencil line or crayon on tinted paper.

JUNE

Revision.

Completion of unfinished work.

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